The Competitive University for a Sustainable Society

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A European University Alliance

invest Virtual Campus

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Virtual Campus TOT overview

- 9:00 – 9:45 : introduction to virtual campus
- 9:45 – 11:00 : presentation of the software
- 11:00 – 11:30 : coffee break
- 11:30 – 13:30 : Hands-on exercises for students, teachers and administrative staff
- 13:30 – 14:30 : lunch break
- 14:30 – 16:30 : Hands-on exercises for administrative staff
- 16:30 – 17:00 :coffee break
- 17:00 – 18:00 : Q&As

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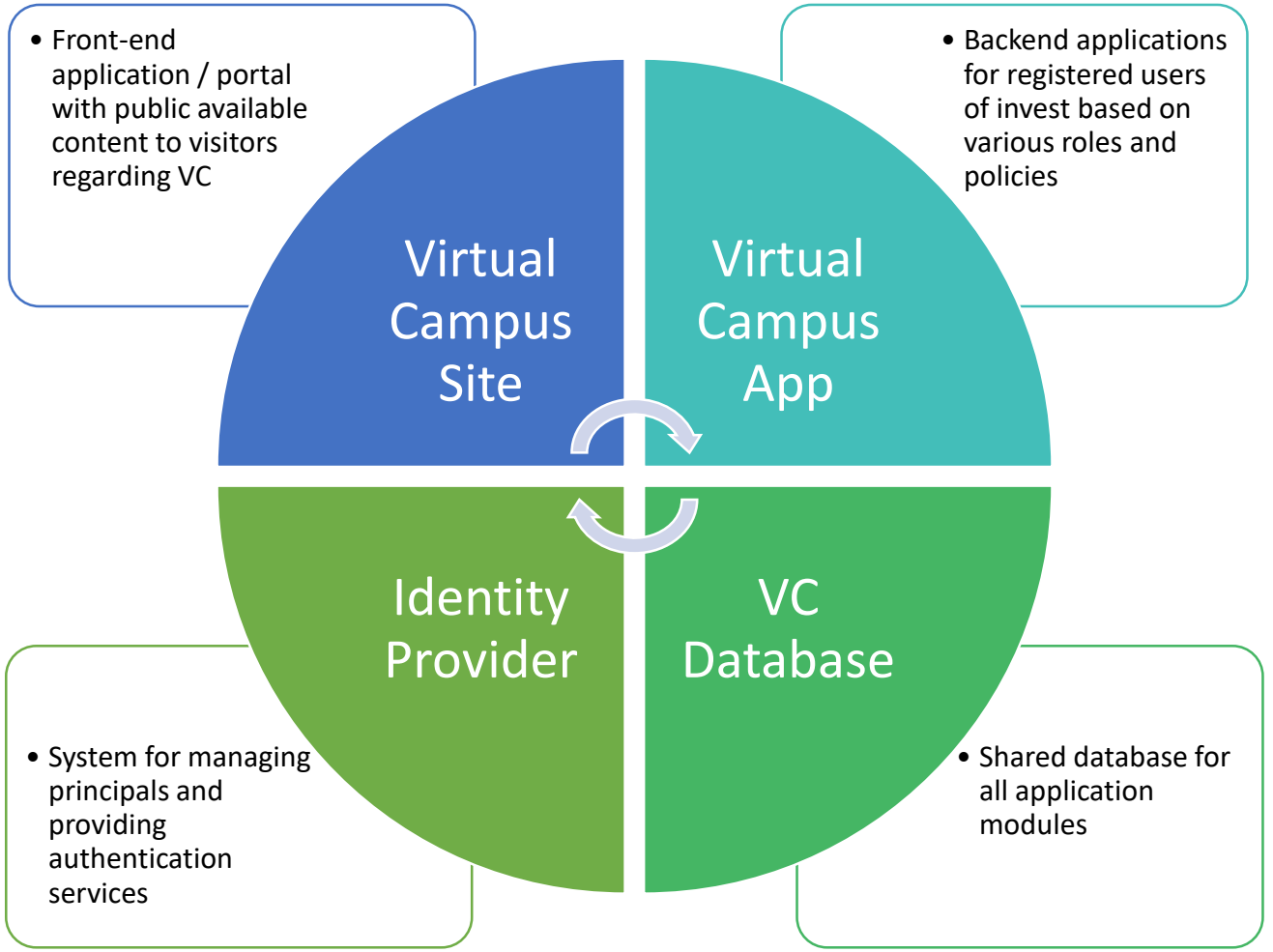
Virtual Campus is an inter university digital ecosystem that consists of several modules and offers applications that support the following groups of users:

- Public users / Visitors
- Teachers
- Administrative Staff
- Students
- Prospective Students



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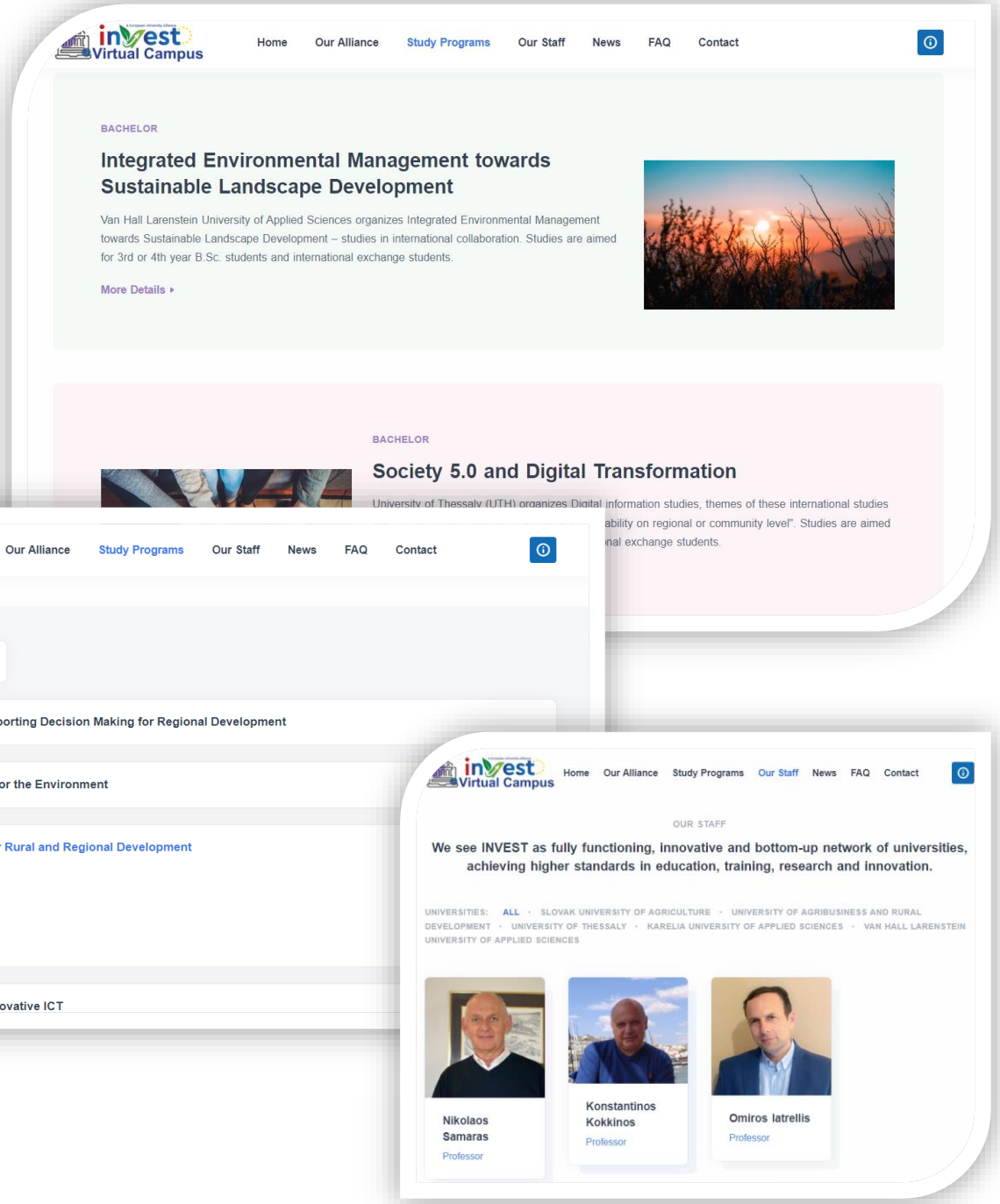
Virtual Campus Site

What is Virtual campus? is a secure, scalable and modern application that acts as a central gateway for supporting users from all universities of our alliance.

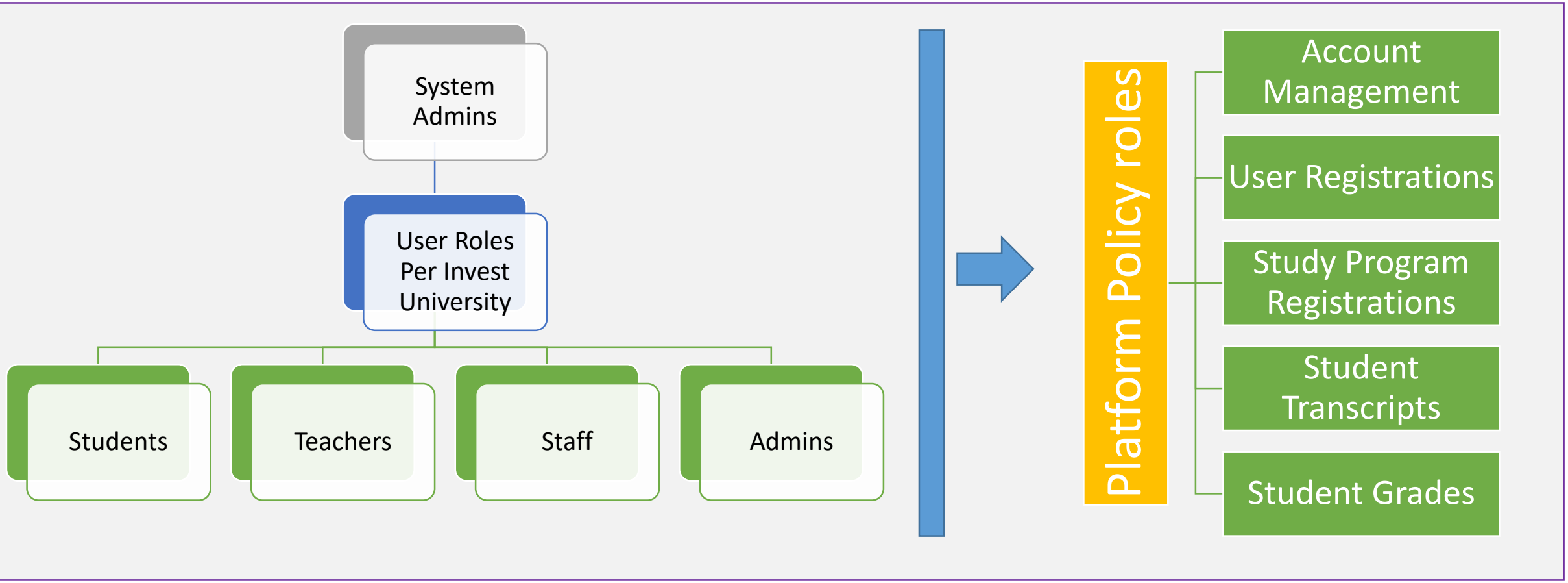
What is our aim? The platform aims at digitalizing the registration and admission procedures that will help and increase student mobilities and minimize administrative efforts for all partner universities in a harmonized way.

Virtual campus website will delivery content and functionalities to guest – public users regarding:

- The universities that participate in Invest initiative
- Our Programs (List of available bachelors and Masters and courses)
- Staff (instructors for each university with profile pages)
- News and Events regarding Virtual campus
- Registration and Login Services for users
- Faqs and Contact pages



Virtual Campus Membership Scheme



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Virtual Campus Membership Scheme

System Usergroups

System administrator:

- Users with elevated access for managing web application platform modules
- Access to content management system for website texts, news and events
- Access to user accounts, study programs, courses, teachers, students, officers, course registrations, study program registrations, documents etc

Admins And Staff With Special assigned policies

- Create announcements
- Send notifications
- Create mass calendar events
- Manage student registrations
- Manage user accounts
- Manage Student transcripts
- Manage Study registrations
- Manage Gradebooks

Virtual Campus Main Usergroups

Teachers

- Upload course material
- Create announcements
- Update personal profile information used both in the website Staff section and in the VirtualCampus App Instructors section
- Manage Courses' Gradings
- Receive notifications

Students

- Update their personal account profile
- Register to a Study Program and view admission progress
- Select courses and view corresponding material
- View grades
- Communicate with the VC network
- Receive notifications

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Virtual Campus Modules

Virtual campus consists of several built-in modules that help our team to collaborate, manage processes, and reach new productivity peaks.

- **Platform management**: Administrative area
- **Workspace**: collaboration area where users can share documents, discuss and increase productivity
- **Calendar**: schedule appointments and events
- **Notifications:** stay tuned with everything that happens on VC network
- **Task scheduler**: make lists of work that needs to get done, assign items, set due dates, and discuss
- **Email services**: daily email reports, direct email messaging
- **Study Registrations**: online process for review and admission
- **Gradings**
- **OpenId Services**: provide identity verification to external services based on local identity system
- **Support Tickets** mechanism: capture service requests and incidents from users

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Virtual Campus Security

Any organization that exposes its computing services to access networks will have to make a significant effort to ensure that information and resources are protected.

Availability: This ensures that authorized entities or processes have access to the application when required.
Authenticity: This ensures that an entity is who they claim to be, and it guarantees the source from which the data comes.
Integrity: This ensures that the information asset has not been altered in an unauthorized manner.
Confidentiality: This ensures that sensitive information is neither made available nor disclosed to unauthorized individuals, entities, or processes.
Traceability: This ensures that the actions of an entity can be attributed exclusively to that entity.

- Cross-Site Scripting (XSS) attacks
- SQL injection attacks
- Cross-Site Request Forgery (XSRF/CSRF) attacks
- Open redirect attacks

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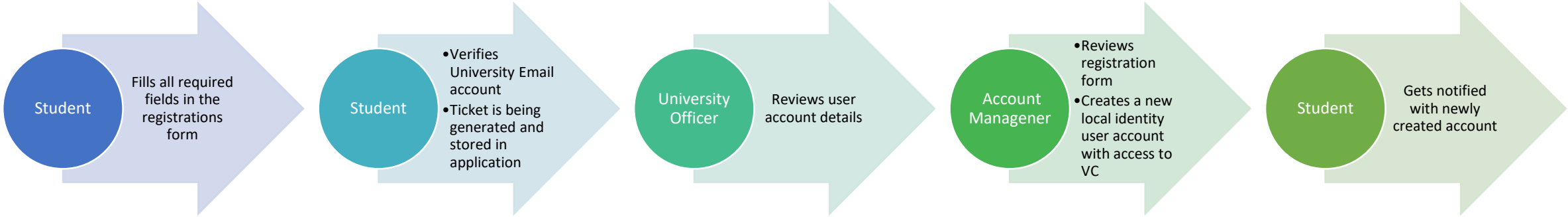
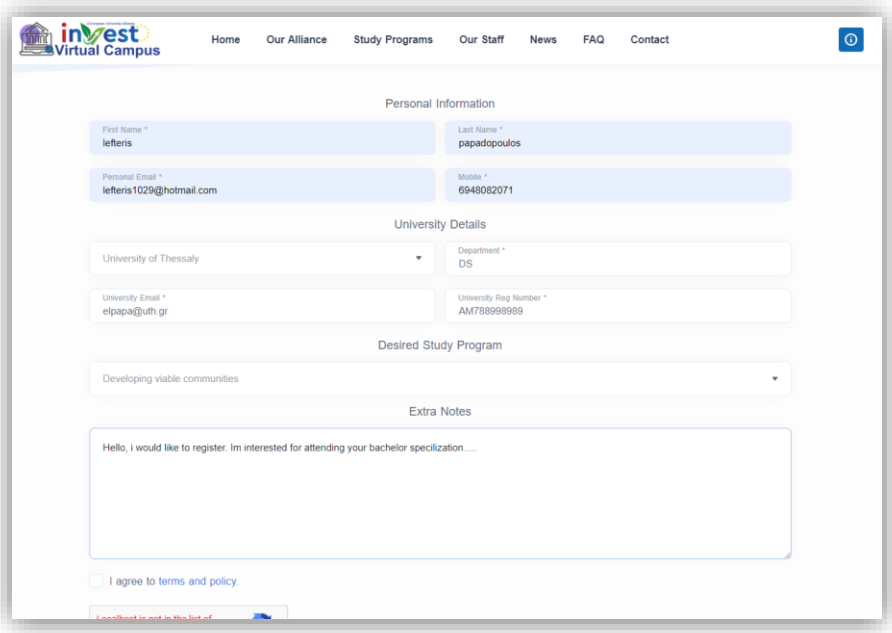
User registration procedure



- Student registrations are available through the public virtual campus website registration form 24/7
- Email verification procedure ensures that registered users belong to the selected partner university
- University officers can view all applications in the virtual campus app ‘Registrations’ area and review them
- Application offers enhanced security for identity accounts using TwoFactorAuthentication procedures based on Email and OTP services.



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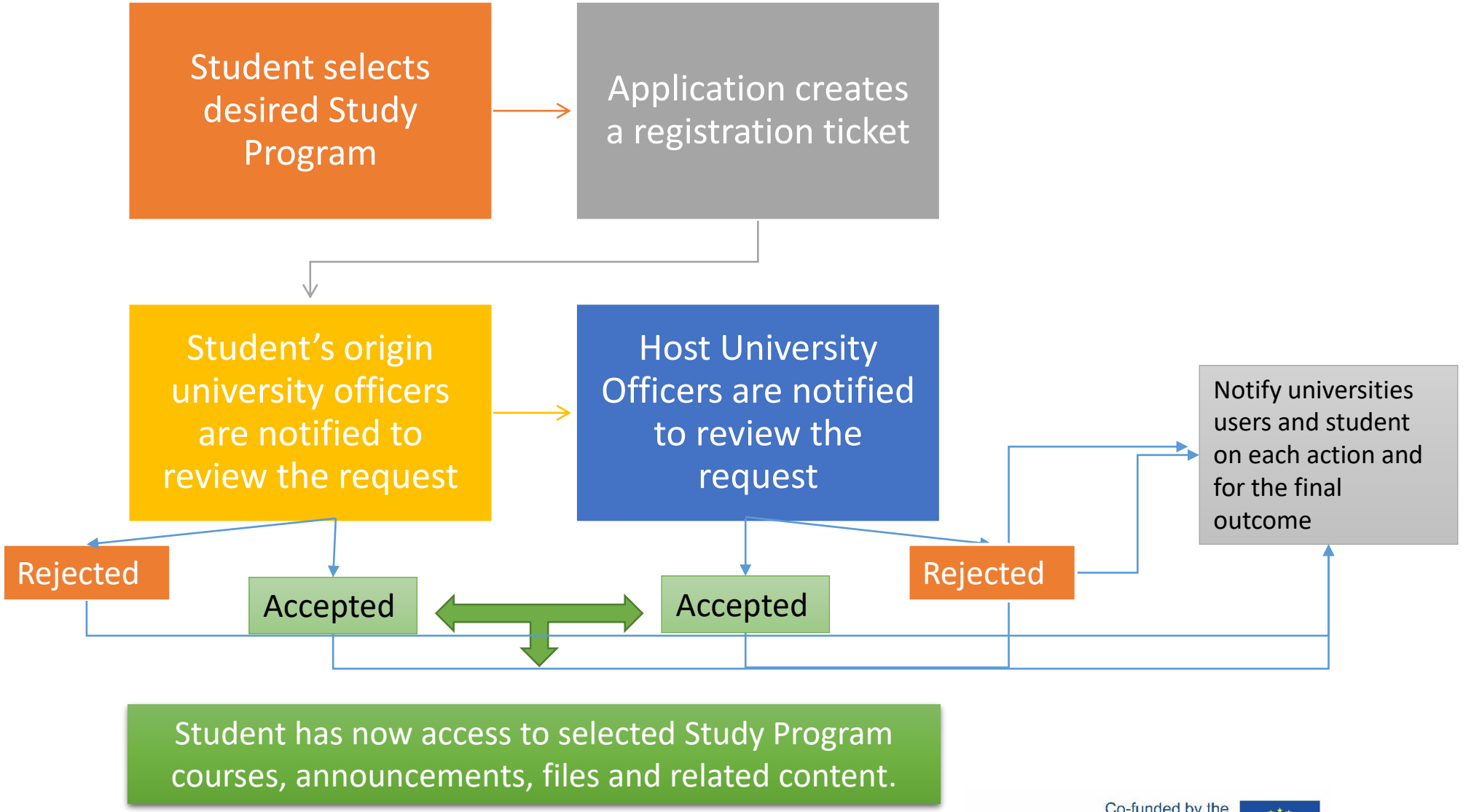
Study Program Registrations



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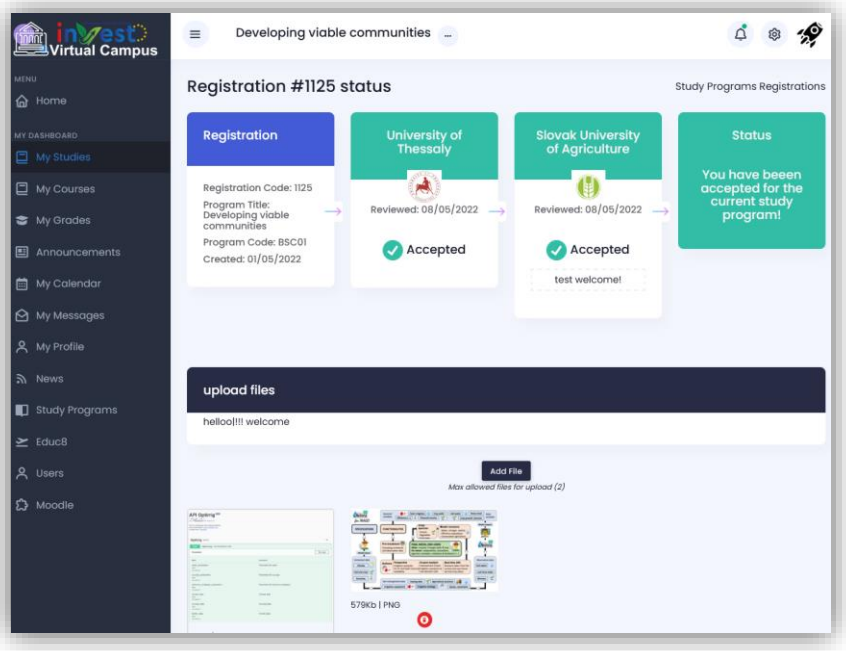
Study Program Registrations

The main goal of virtual campus is to make the collaboration and communication of the five partner universities easier and more flexible. One of the main problems that had to be solved was the study program registrations.

We managed to create a tailor-made solution that provides university officers and students all tools they need in order to manage and monitor study registrations in a harmonized way.



- Students have live information regarding the progress of their study registration. Notifications are being sent at each stage.
- Universities' officers have access to all data they need in order to review registrations.
- Communication between parties can be made through the application messaging, workspace or task scheduler modules.
- Student transcripts can be uploaded through the application

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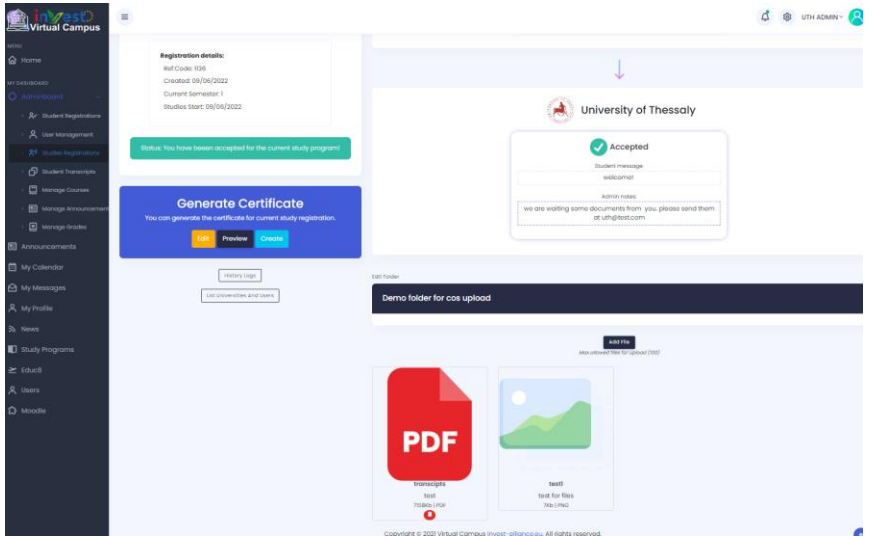
Study Program Registrations

Registration process , management and monitoring can be made through the Virtual campus in a fast and secure way.

- The registration flow simplifies manual administrative work. Each university can review student's data and proceed to necessary actions.
- University officers can communicate using the 'Messages', 'Workspace' or 'TaskScheduler' in-app modules.
- The platform provides a common space to share files during the whole process.
- Users can easily generate certification reports using predefined templates.



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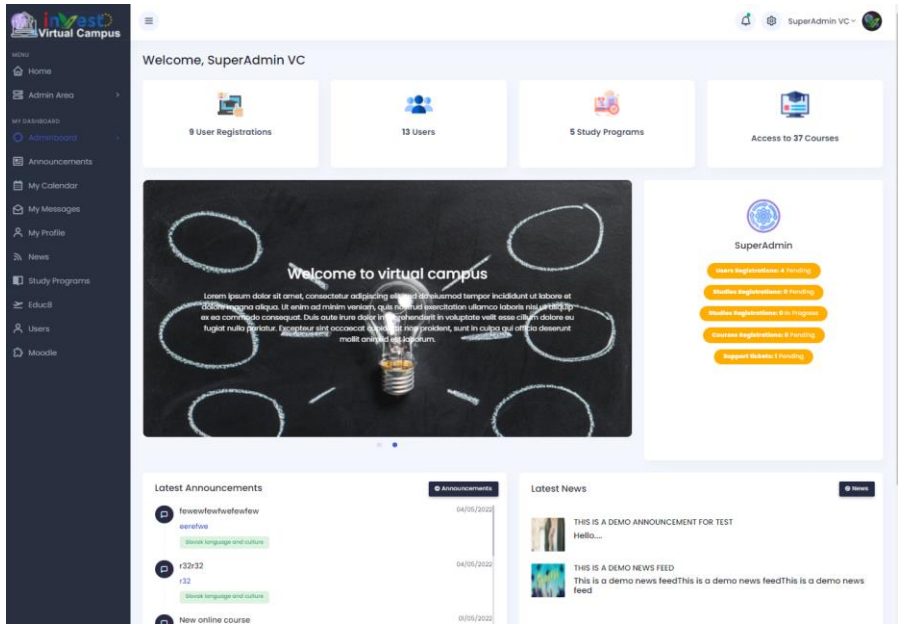
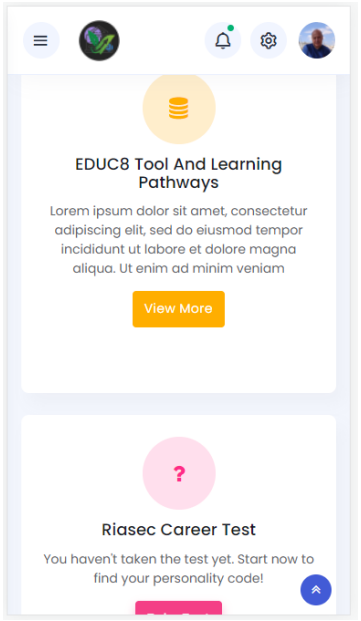
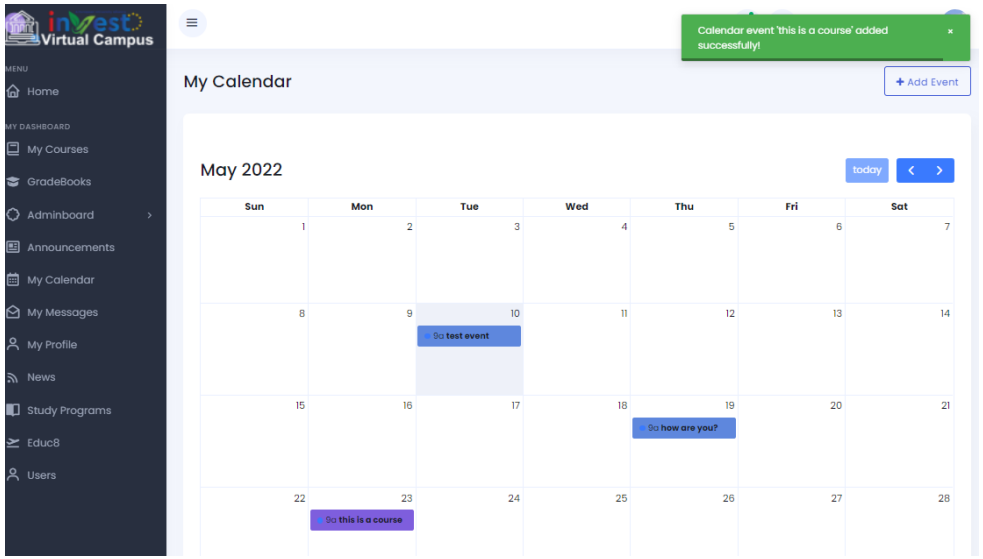
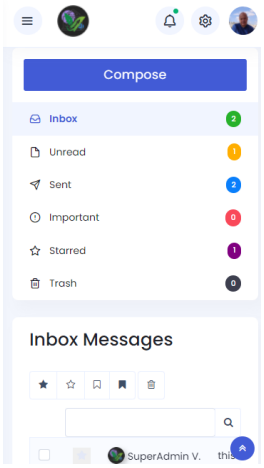
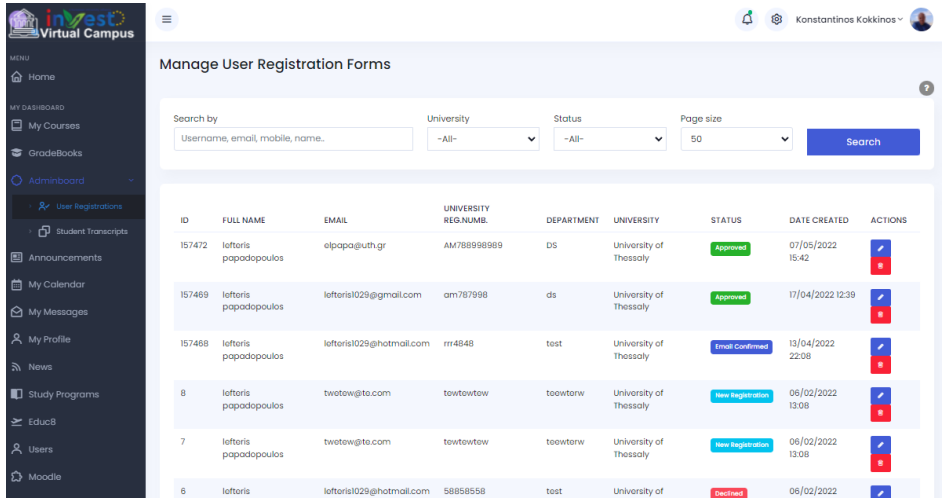
Virtual Campus Web Application

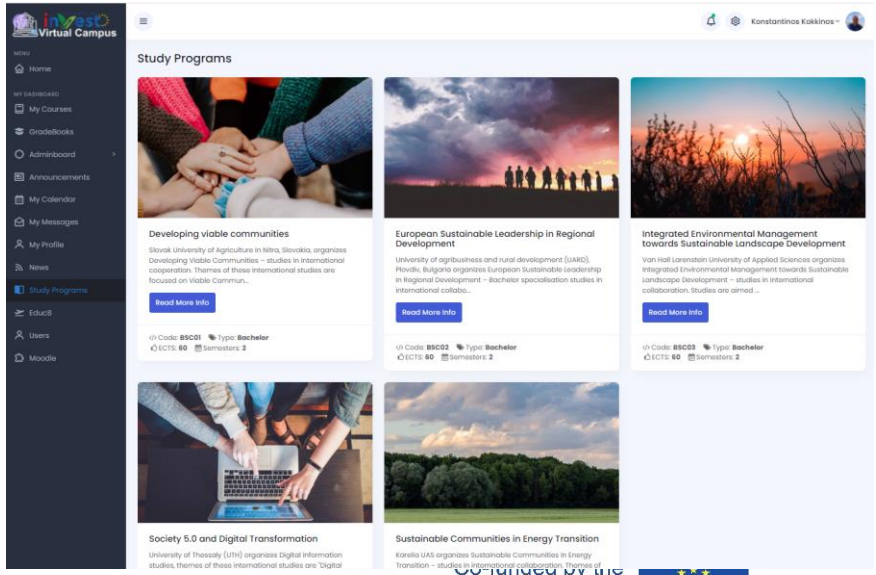












Virtual Campus Web Application

Common App Modules

- Login – Password Reset – Multifactor authentication
- Calendar
- Messaging
- Announcements
- Workspace
- Task Scheduler
- Notifications system
- News
- Study programs
- Faculty pages
- Educ8

Students

- Request for account
- Register to courses
- Register to Study programs
- View Grades

Teachers - Staff - Admins

- Review accounts
- Review registration requests
- Manage Workspace + Task Items
- Upload grades
- Upload transcripts
- Manage users
- Manage courses and related material
- View departmental organization per university

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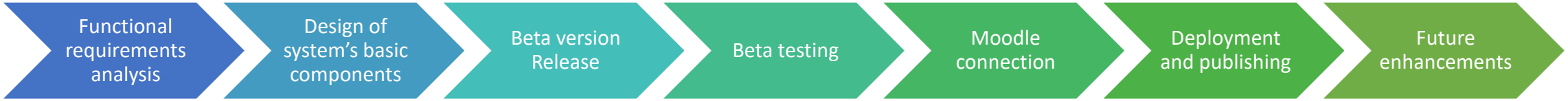
Virtual Campus Development phase

Virtual Campus is an online web application platform designed, implemented and maintained by the UTH team using open source tools and technologies.

Framework: Microsoft .NET 6 Core

Backend programming language: C#

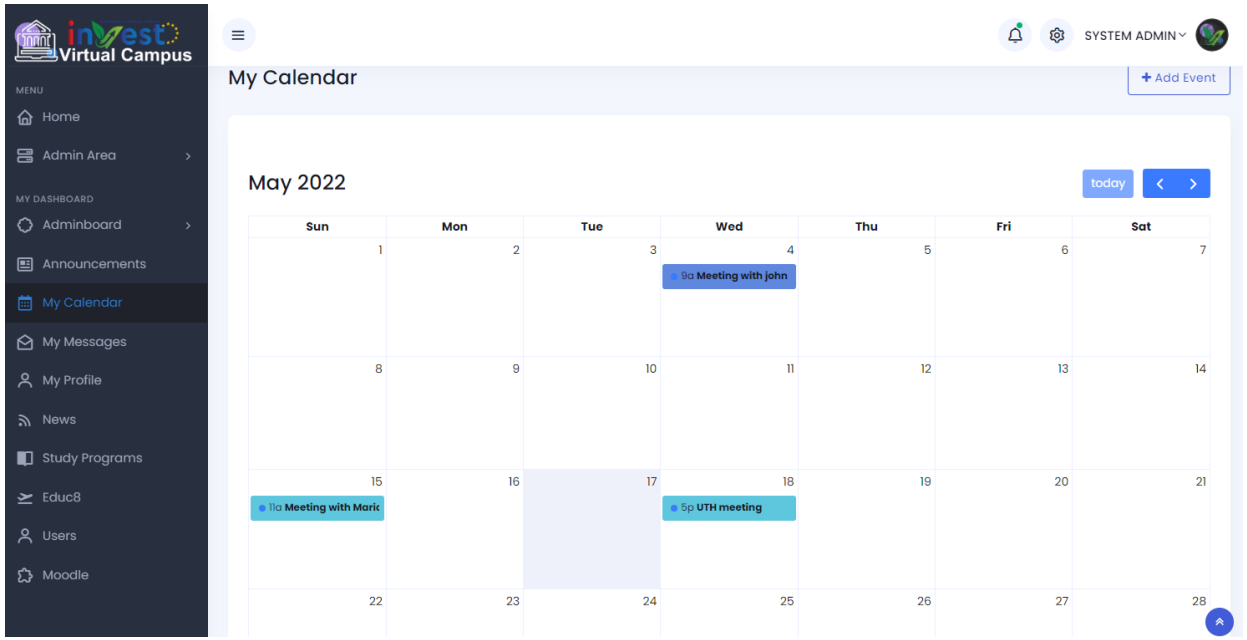
Database Storage: Microsoft SQL server

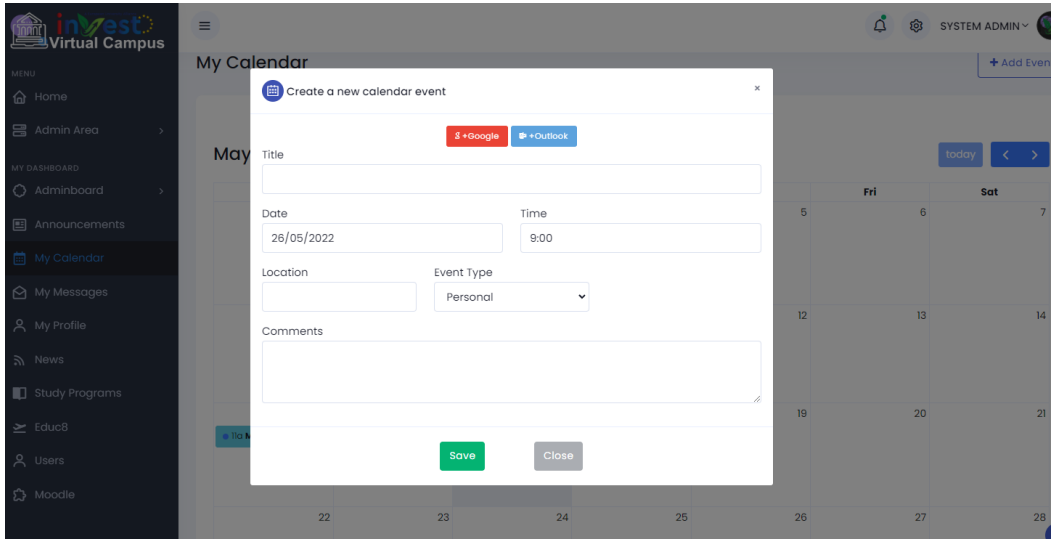


- Testing core functionalities
- Fixing reported bugs
- Monitoring
- Reviewing feedback from users

Virtual Campus - Calendar

- Available to all user groups
- Easy-to-use interface
- Add events with dates, times, location and comments
- Subscribe with Google or Outlook Calendar to quickly embed / attach your events
- See an agenda of everything you've got coming
- Get notified with daily reports when an event is about to take place





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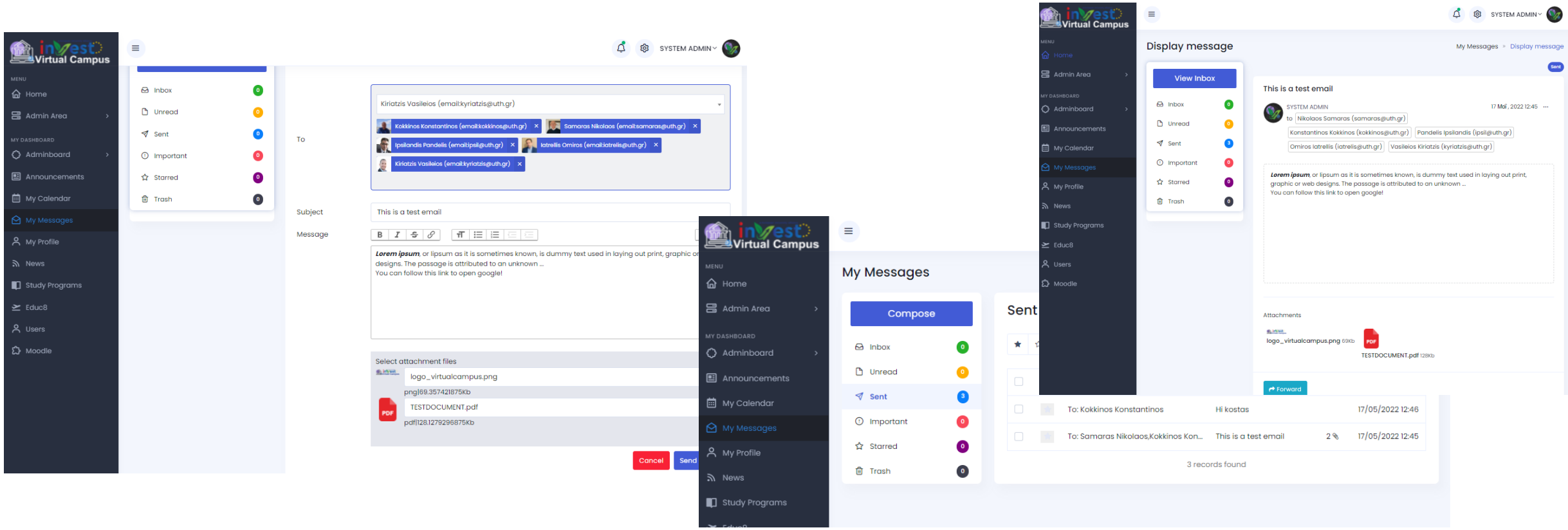
Virtual Campus - Messages

- Available to all user groups
- Send direct messages to multiple users with file attachments
- You can message one person or a group of people, and the message is only visible to the people you select
- You'll get a notification every time someone messages you, along with an email message
- You can archive or delete your messages, view unread items or mark them as starred



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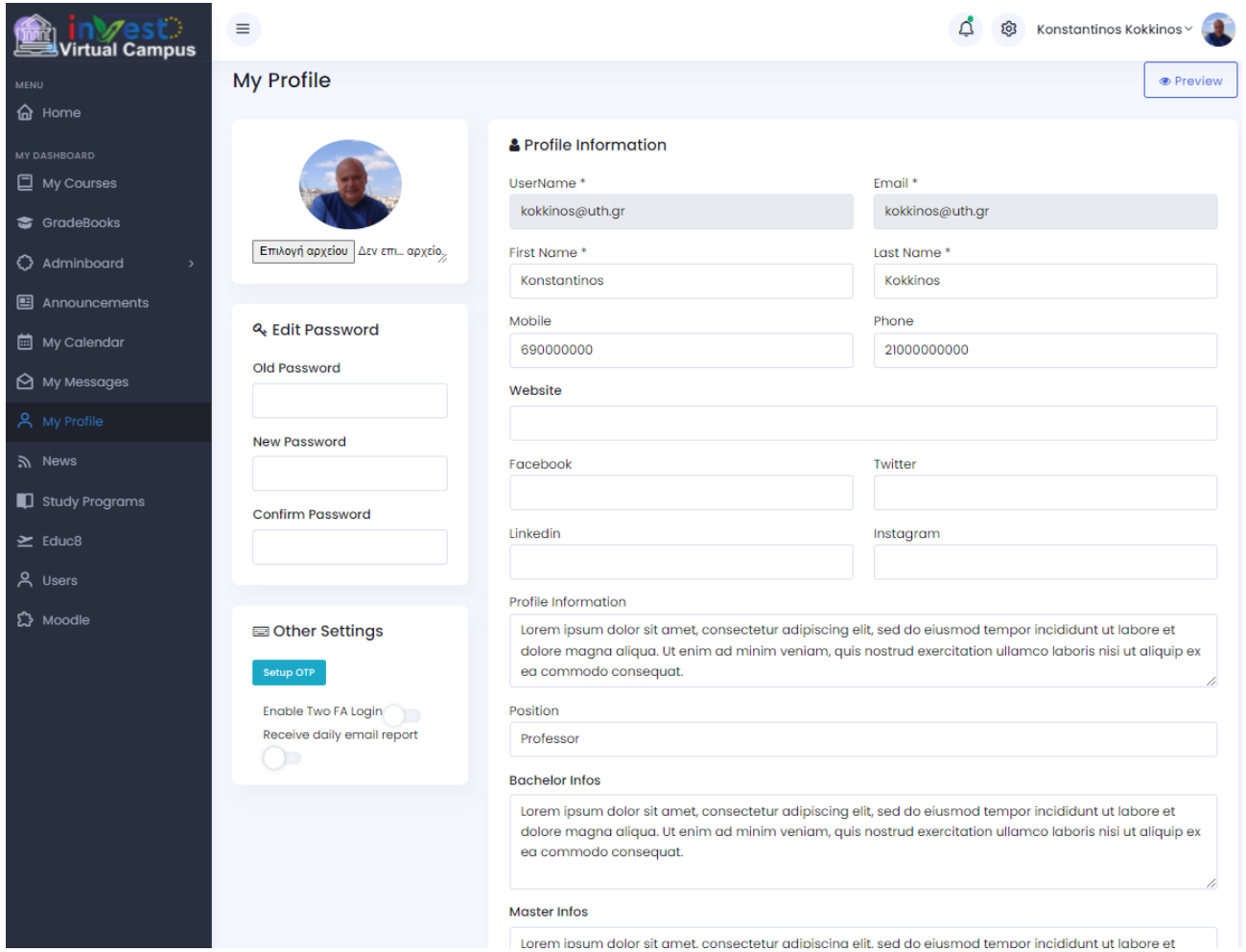
Virtual Campus - Account

- Each user can manage his personal account
- Teachers can also update their public profile page by entering corresponding information such as teaching experience, scientific research, publications etc
- Update current passwords
- Enable daily email reports
- Enable two factor authentication during login process

- Usernames and Emails should be unique and it is advised to ‘Account Management’ users to use the university email address as username account



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Virtual Campus – Account 2FA

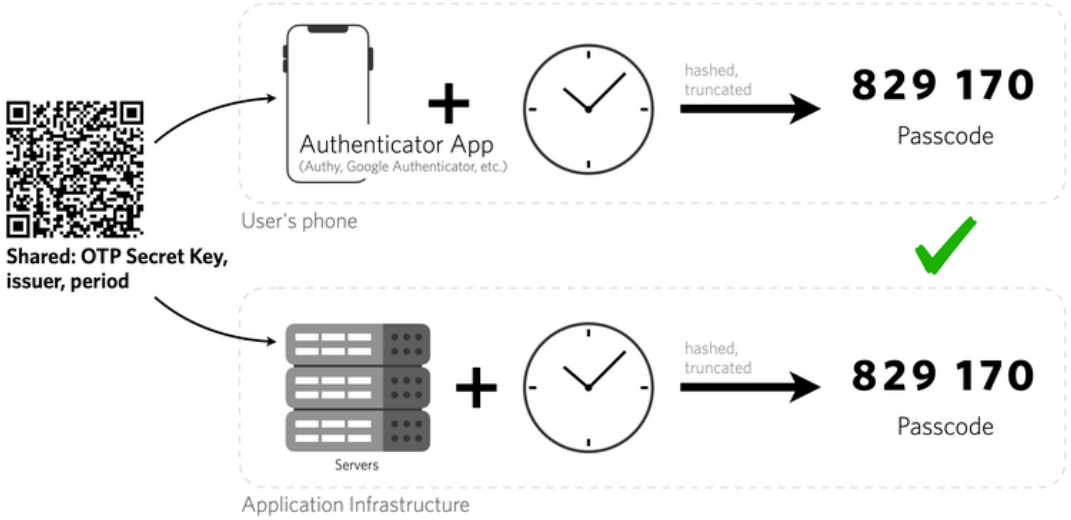
Two factor authentication adds an extra layer of account protection by requiring two types of authentication. This can be something a user knows, like a password, and something the user has, like a phone or an extra secret token.

TOTP: Time-Based One-Time Password Algorithm

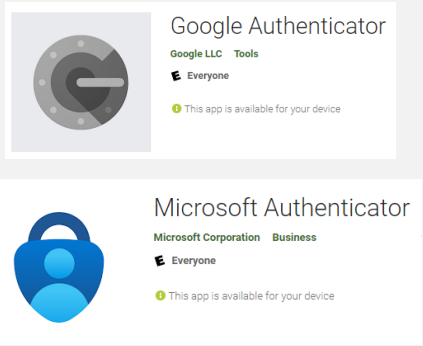
The TOTP algorithm follows an open standard documented in RFC 6238. The inputs include a shared secret key and the system time.

Email Verification

Verification is being made through a system auto-generated code which is being sent to user's personal email.



Two of the most popular and widely used Mobile OTP Auth Applications



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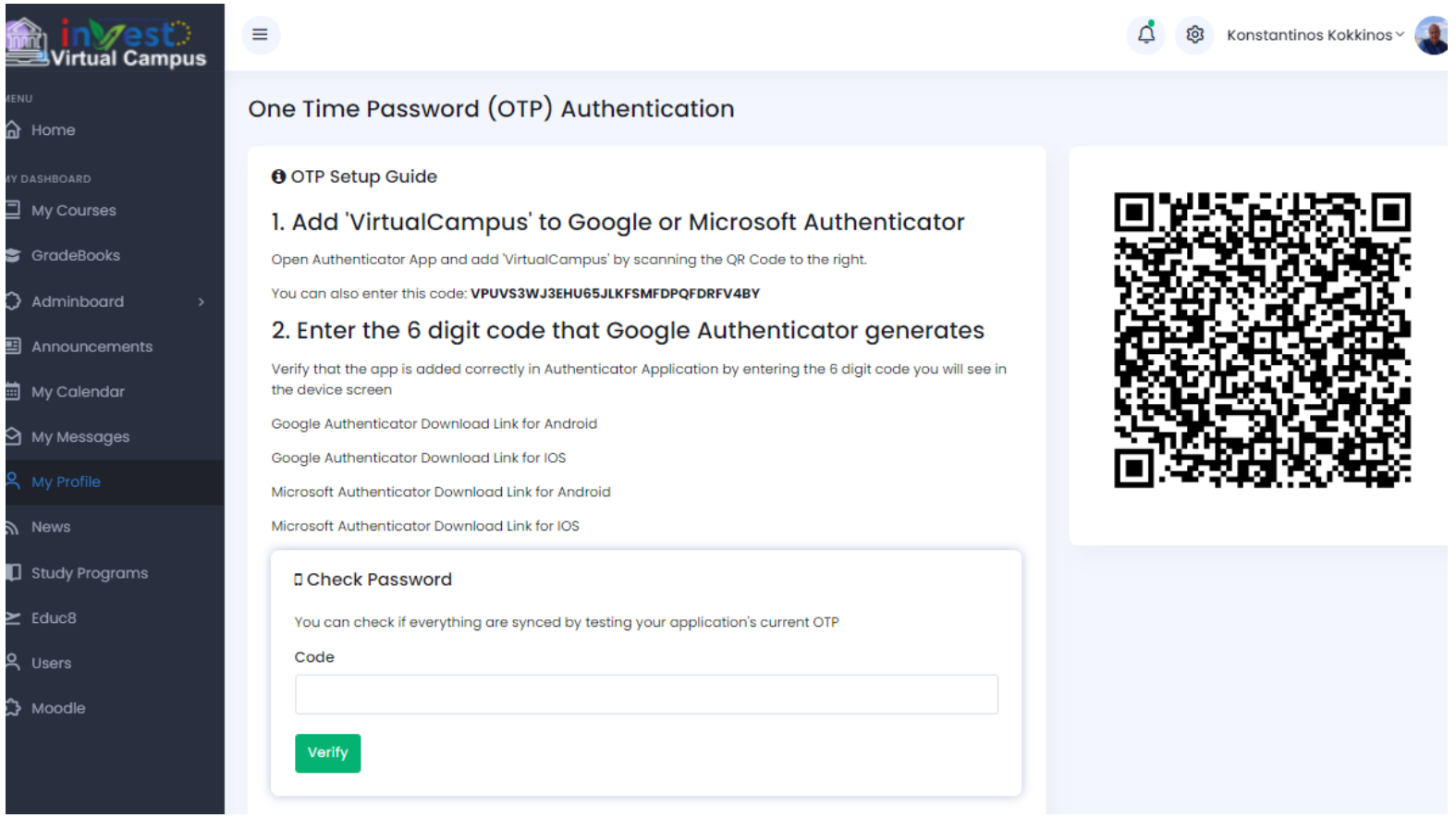
Virtual Campus – OTP SETUP

- User can enable or disable 2 factor authentication based on their needs
- If enabled ‘Email’ authentication provider will be enabled by default
- It is advised to also enable and setup OTP authentication in the device in order to have multiple authentication methods in case of a component failure
- Users can download the app and scan the unique QR code
- They can check that everything’s synced by testing the generated passwords



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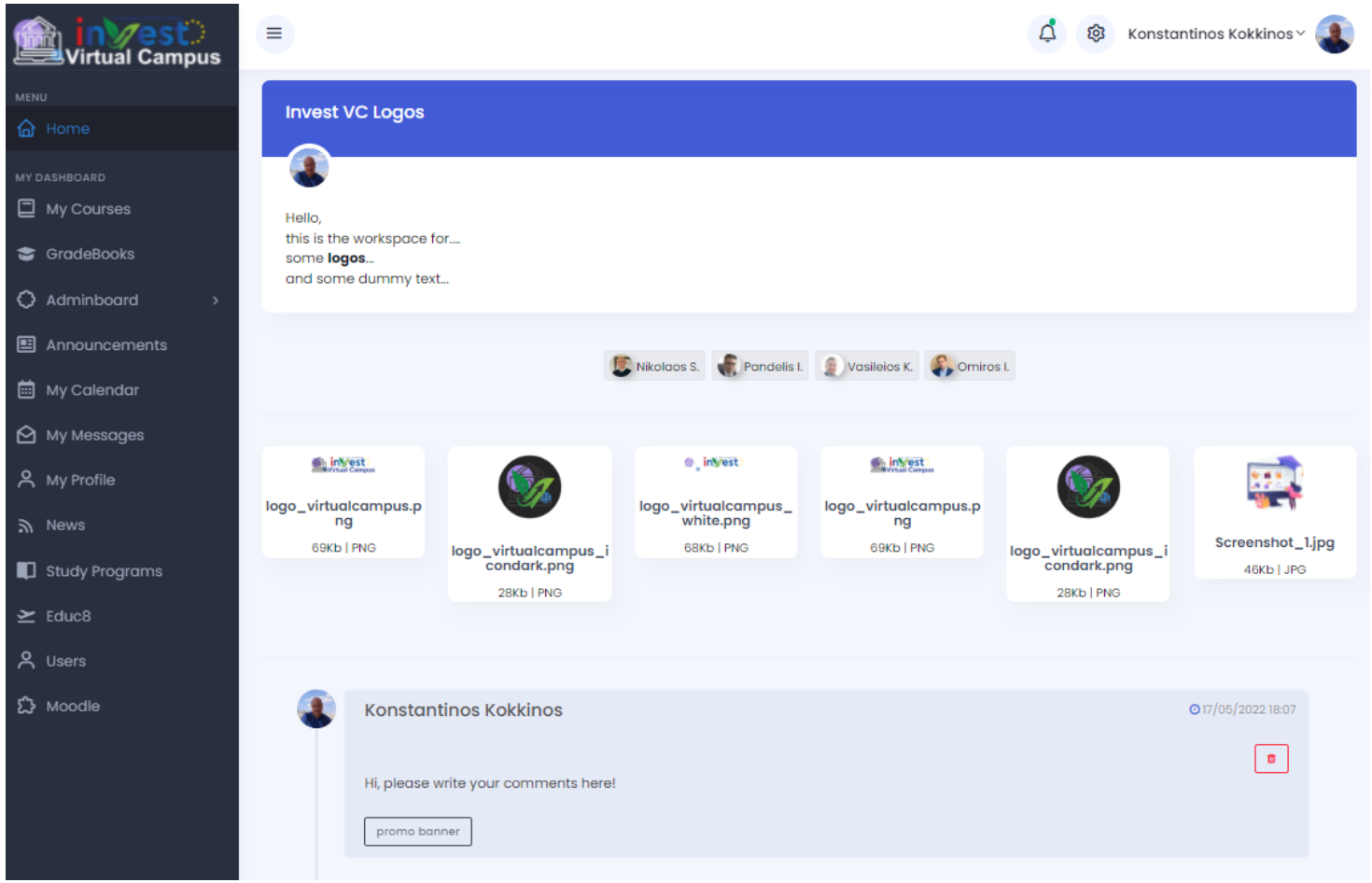
Virtual Campus - Workspace

- Available to all user groups (or only to administrative staff of the 5 universities)
- Create workspaces to share documents, files, and images with simple file upload.
- Add specific users with access privileges.
- Users can comment, share documents and collaborate.
- On every new comment users can be notified (if enabled based on their preferences for the specific workspace)



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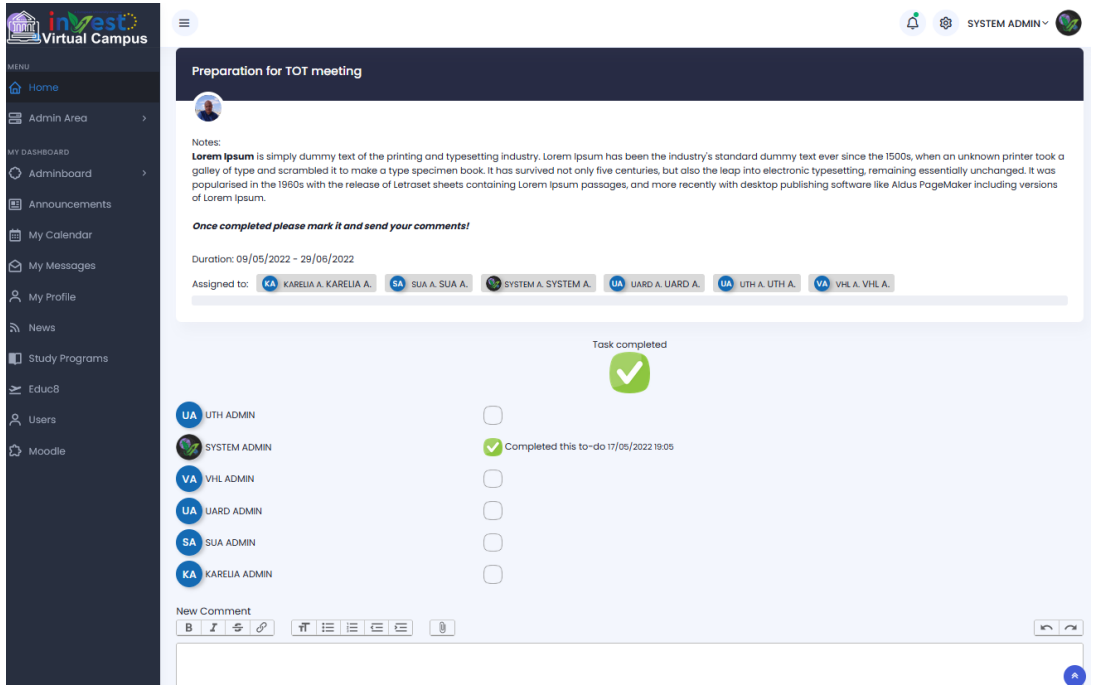
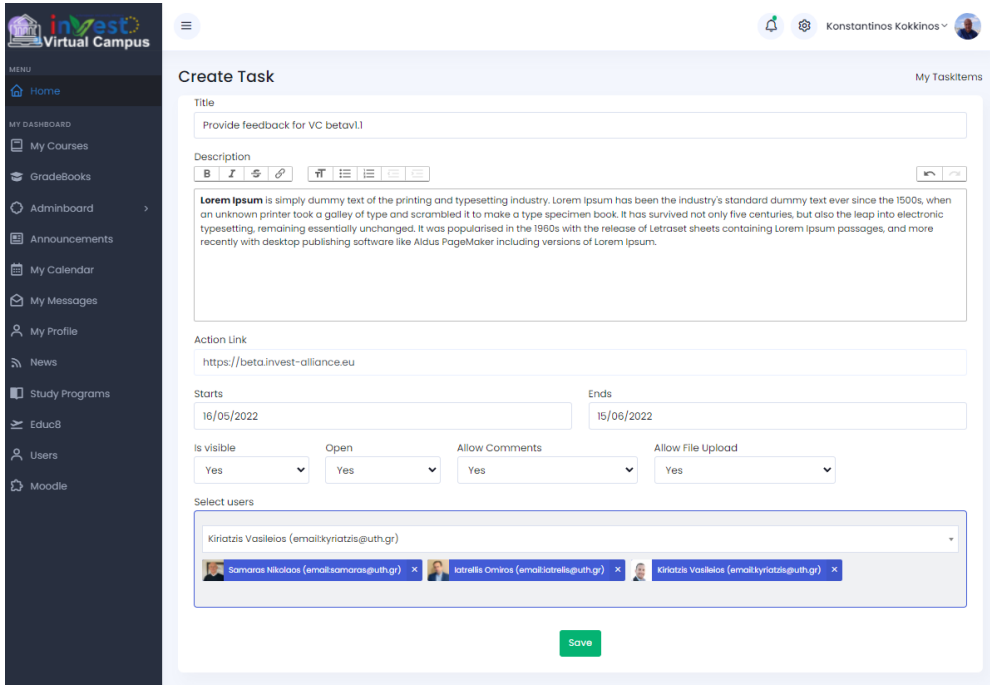
Virtual Campus – Task Scheduler

- Available to all users (students cannot create tasks)
- Assign tasks with due dates to group of users
- Monitor completion progress
- Allow communication and file uploads in comments
- You'll get a notification every time someone completes the task





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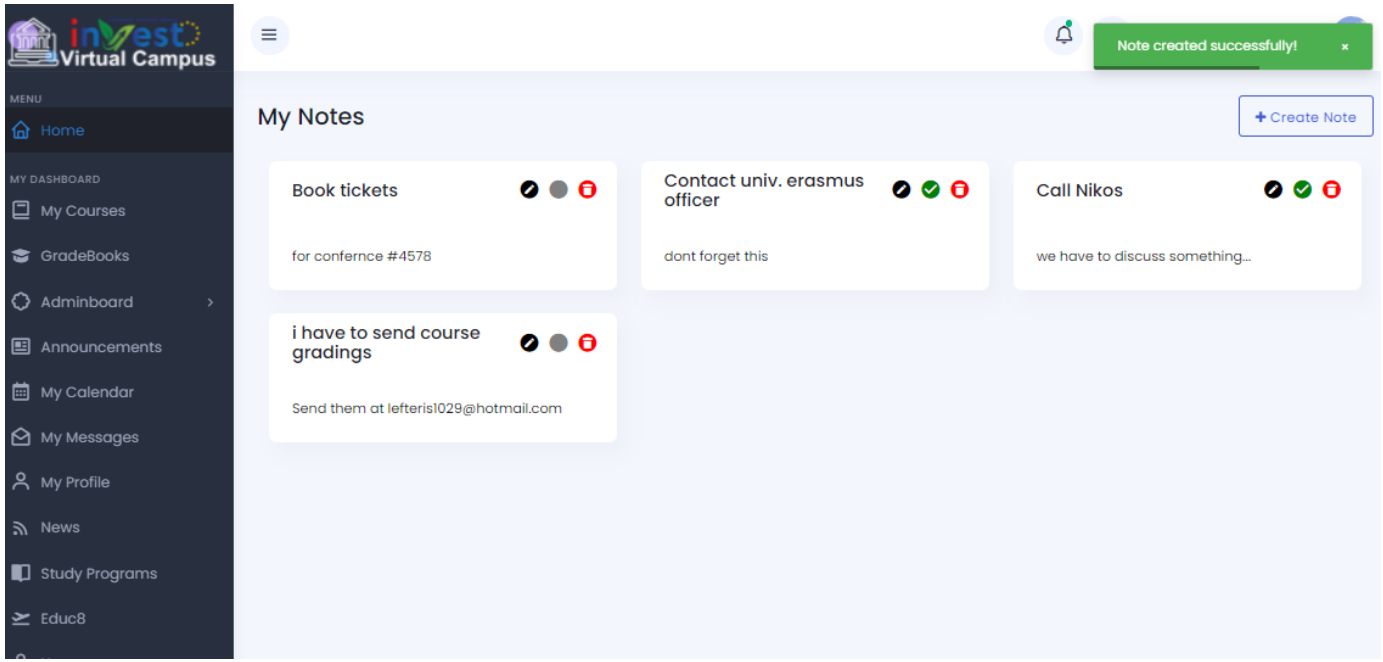
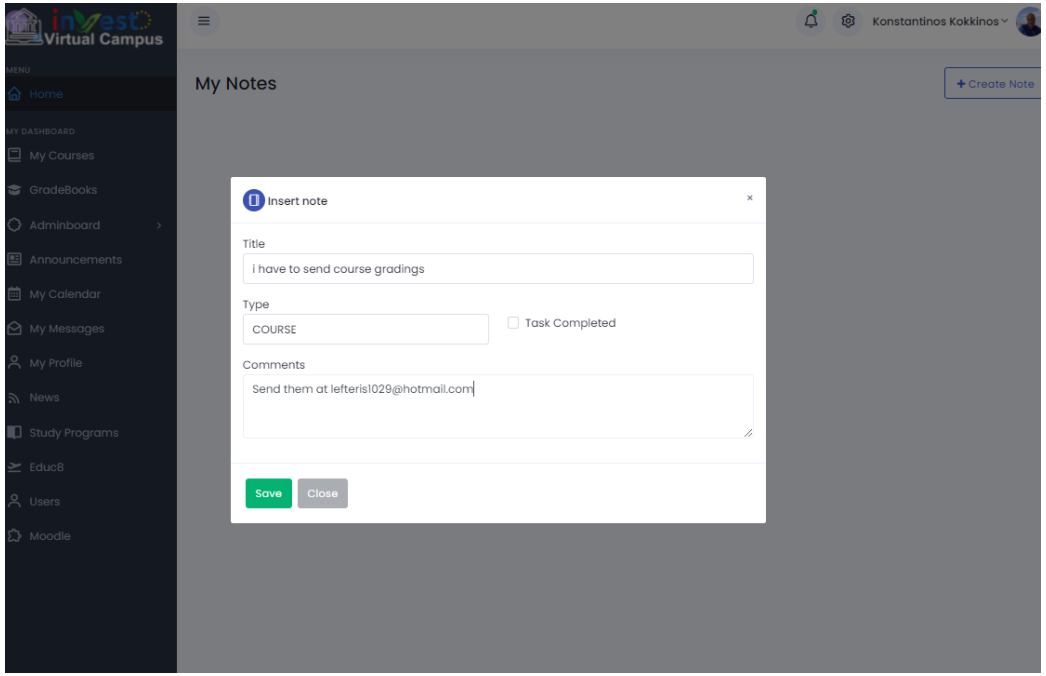
Virtual Campus – User notes

- Available to all user groups
- Create quick personal notes
- Easily edit them or mark them as completed





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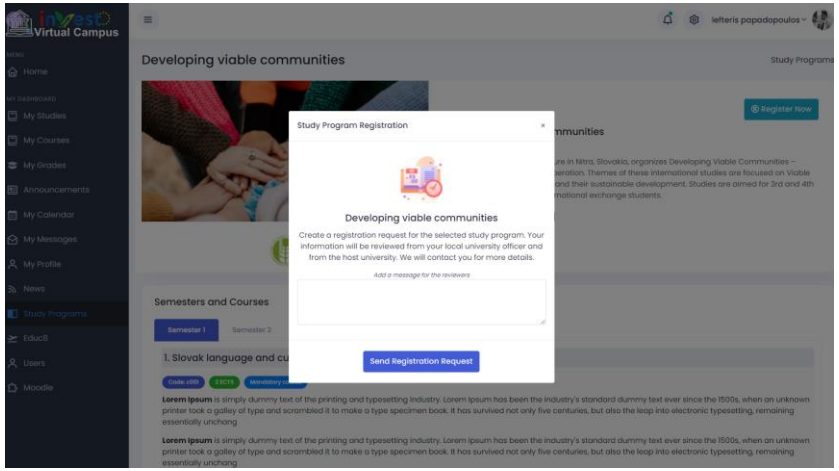
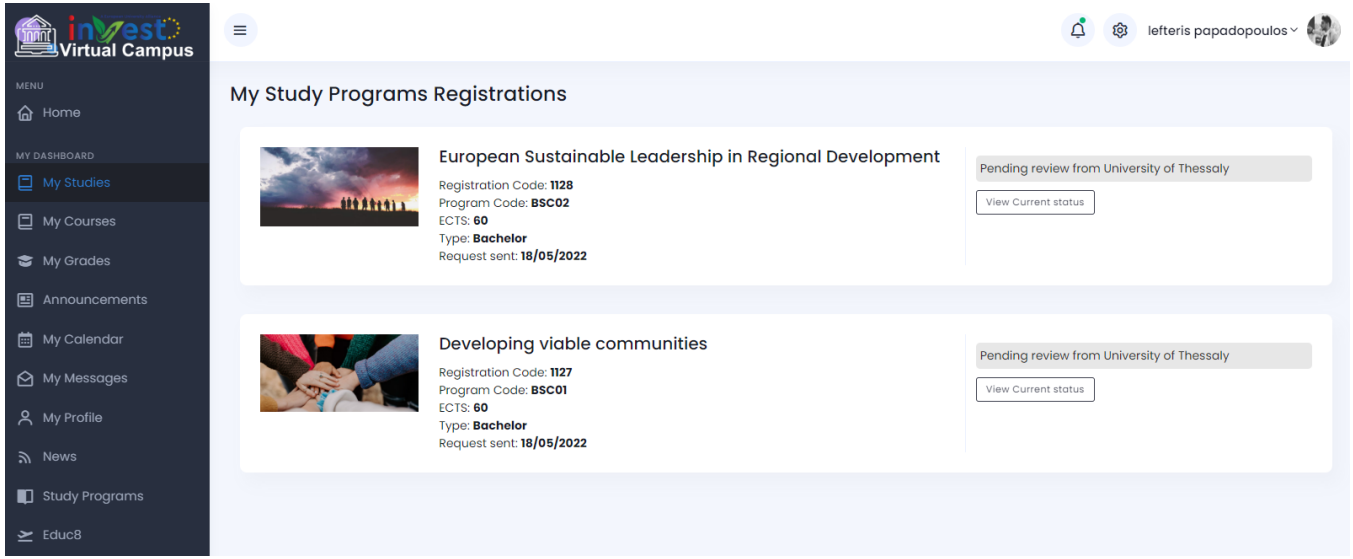
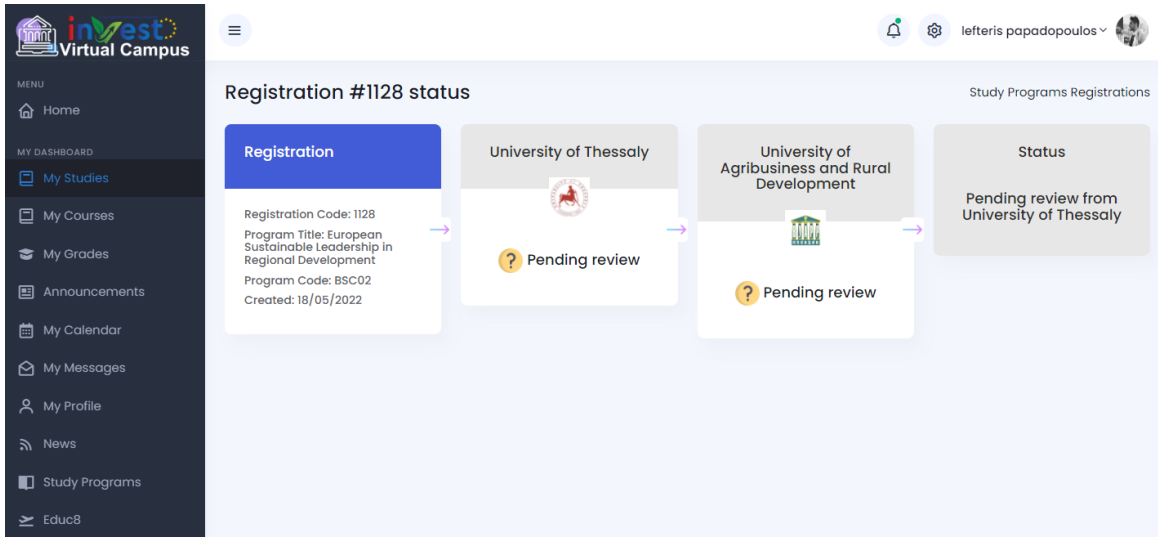
Virtual Campus – Study Program Reg.

- Available to students
- Create requests for study programs
- Stay updated by monitoring the review progress
- Receive notifications for status updated







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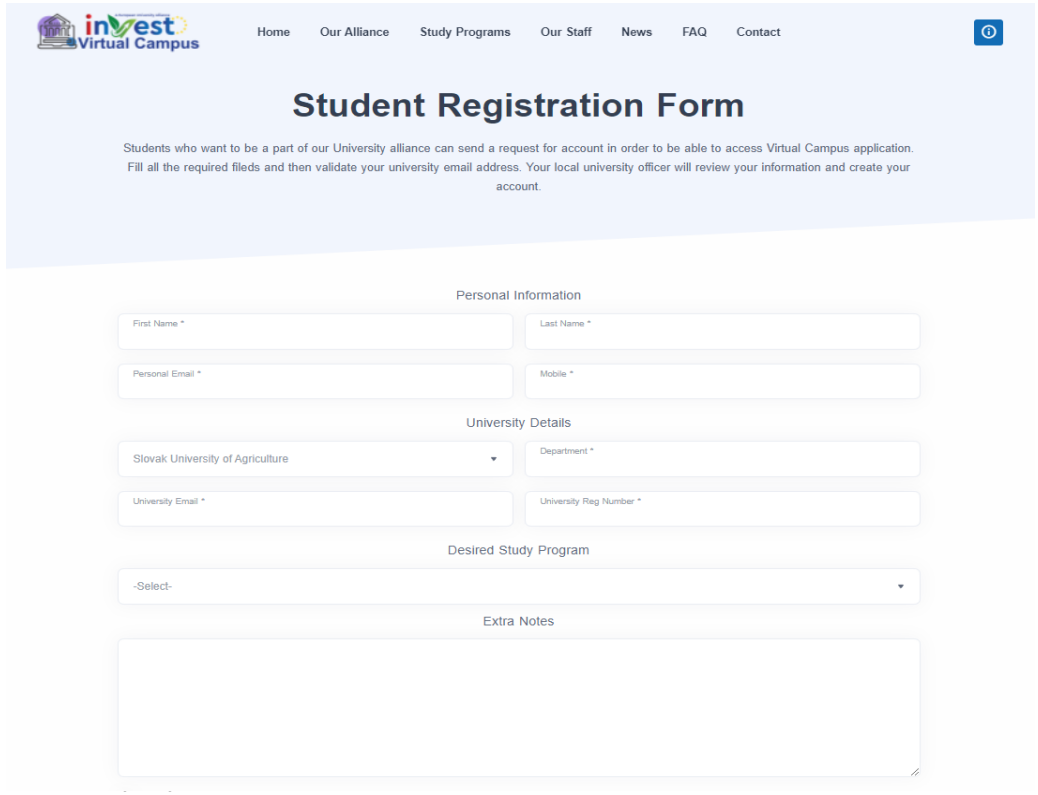
Exercise 1 – User registration

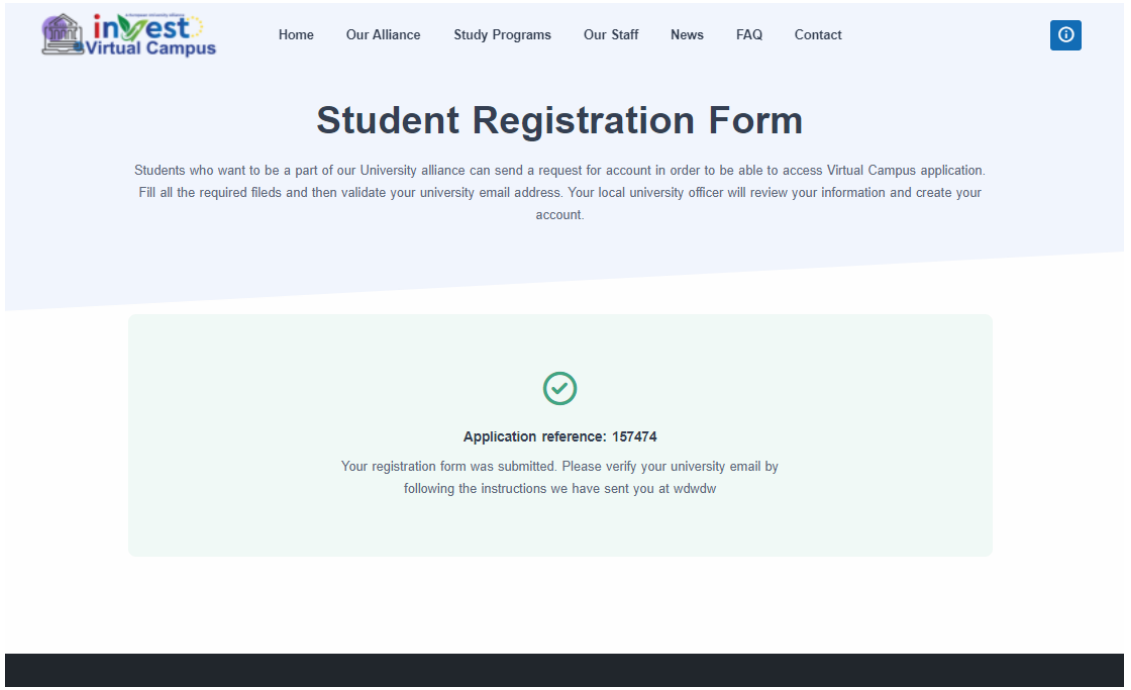
Steps

- Go to Virtual Campus Site
- Create a new Student registration form and fill all required fields
- Verify your email address
- Receive your registration code

Scenario

Student from partner universities wants to register and request for an account in order to be able to use Virtual Campus App





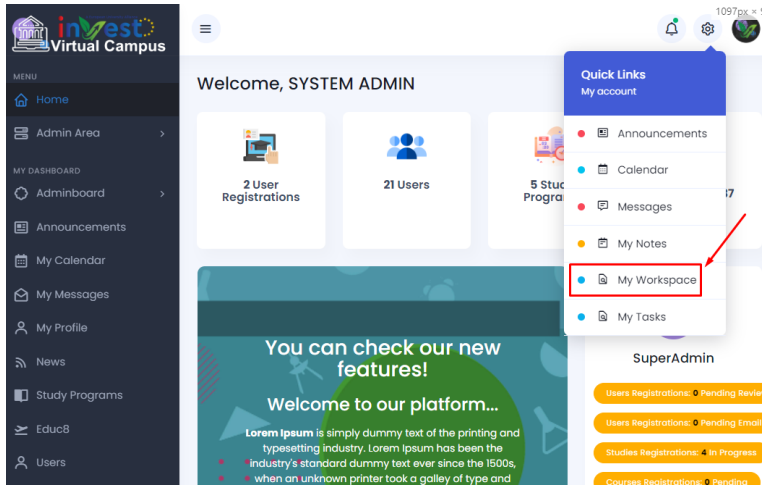
Exercise 2 – Create Workspace

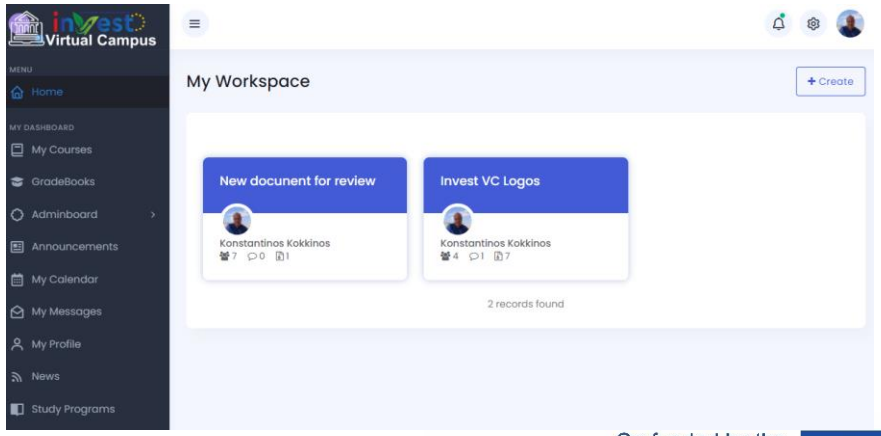
Steps

- From the top navigation menu, find ‘My Workspace’ item
- Select ‘Create’ to open the workspace Editor
- Enter a title, description
- Set ‘allow comments’ and ‘allow file uploads’ to yes
- Set ‘Restrict access’ to yes in order to select specific users
- Press ‘Save’
- Check to verify that the workspace item was created
- Send comments and interact with other users
- Check for notifications automatically generated by the system
- When finished you can edit current item and disabled new user comments

Scenario

User wants to create a workspace to be shared with a group of other users in order to discuss and upload files





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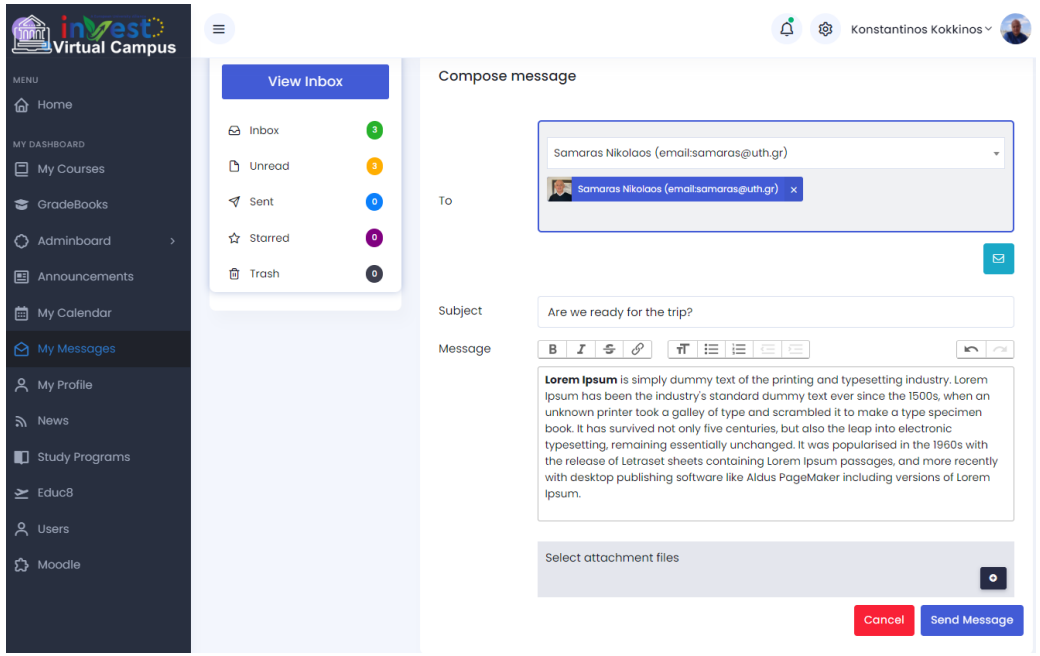
Exercise 3 – Send message

Steps

- From the left navigation menu, find ‘My Messages’ item
- Select ‘Compose’ to message Editor
- Select your recipients
- Fill ‘Subject’ and ‘Message’ areas
- You can attach up to 3 files if needed
- Send the message
- Recipients will receive their own copy of the message along with attachements
- Recipients will be instantly informed with an email

Scenario

User wants to send a direct message to a user (or a group of users)



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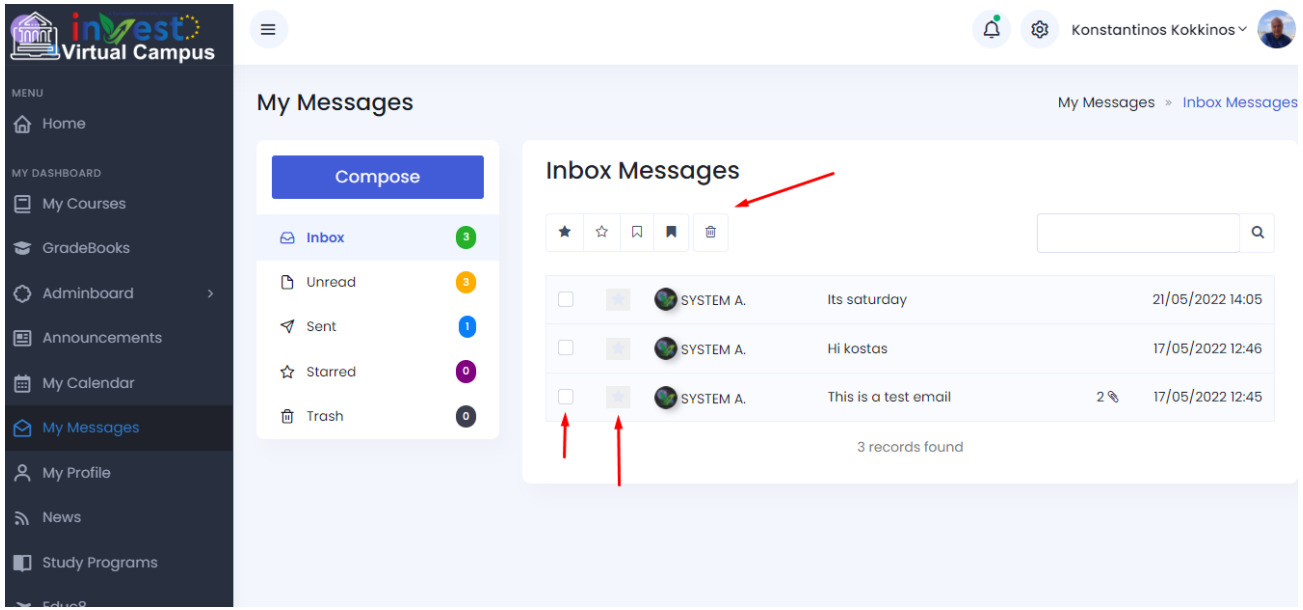
Exercise 3 – Manage messages

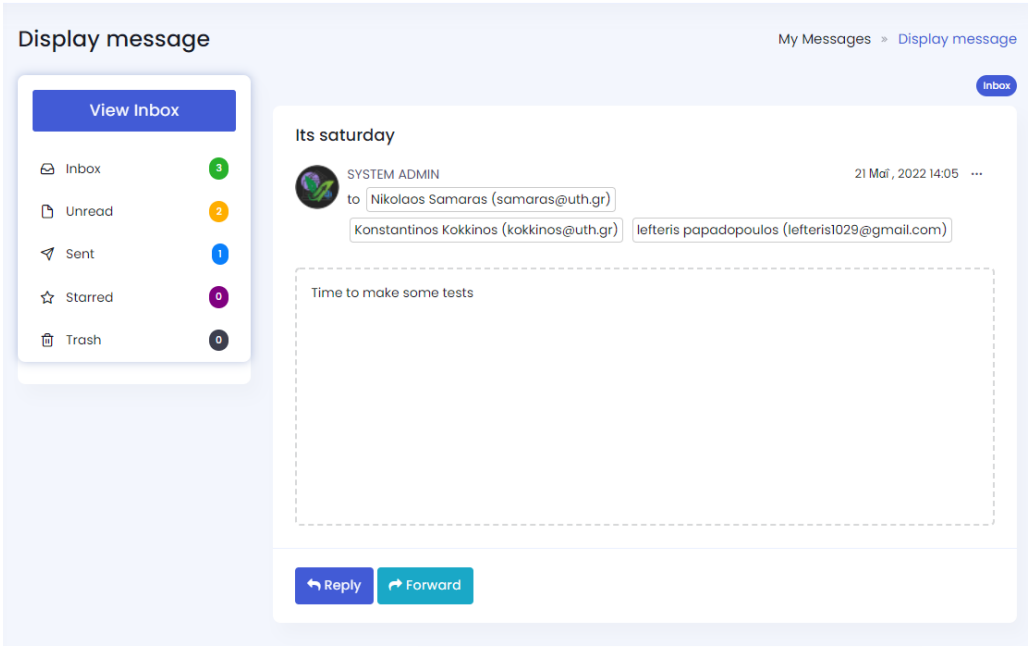
Steps

- From the left navigation menu, find ‘My Messages’ item
- Select the category you want
- Select the record you want and open it to read the message
- You can send a reply, or forward the message
- Make some extra actions (for example mark a message as ‘starred’ or move some messages to trash folder)
- Completely remove a message from the ‘trash’ folder

Scenario

User wants to view inbox or unread messages, save them to favorites (starred messages) or move them to trash





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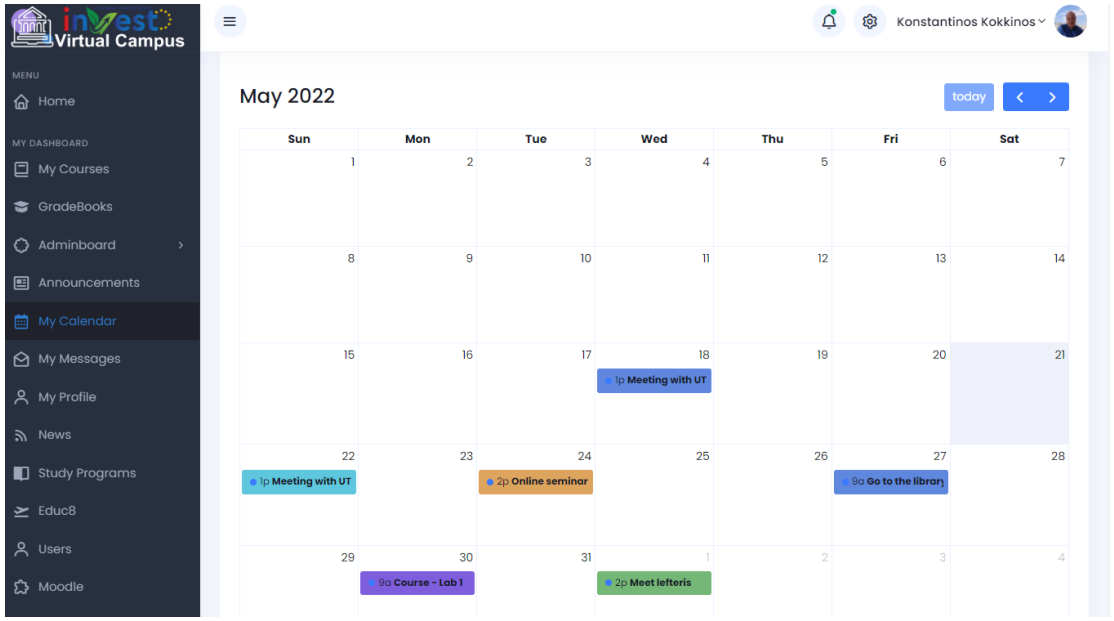
Exercise 4 – Calendar

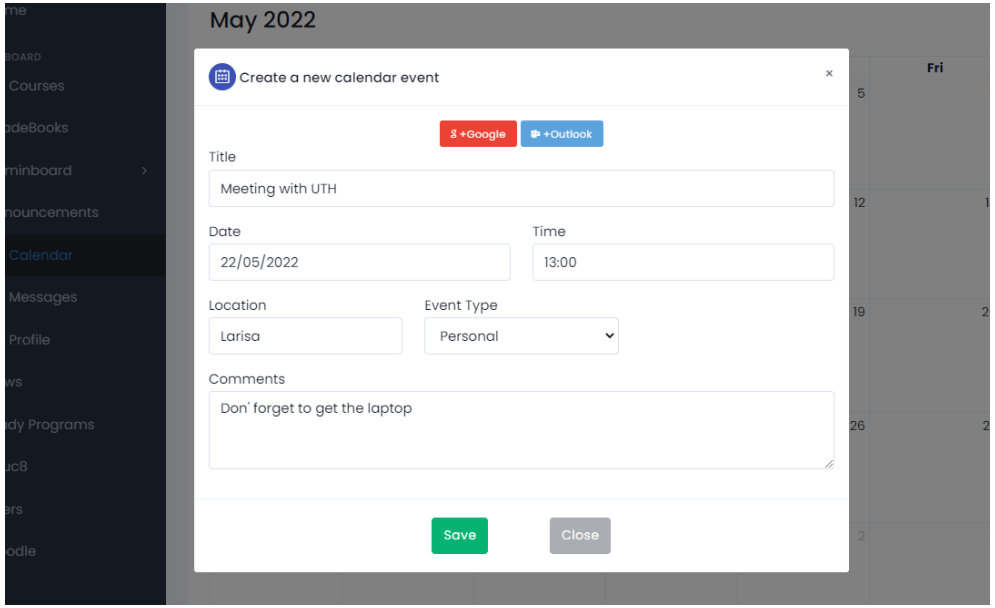
Steps

- From the left navigation menu, find ‘My Calendar’ item
- Select a date and click on the calendar
- Fill required information
- Check to see that the event is being added to your personal calendar and also in your home page (section upcoming events)
- Try to add the event to your google or outlook calendar

Scenario

User wants to view his personal calendar events or create a new event





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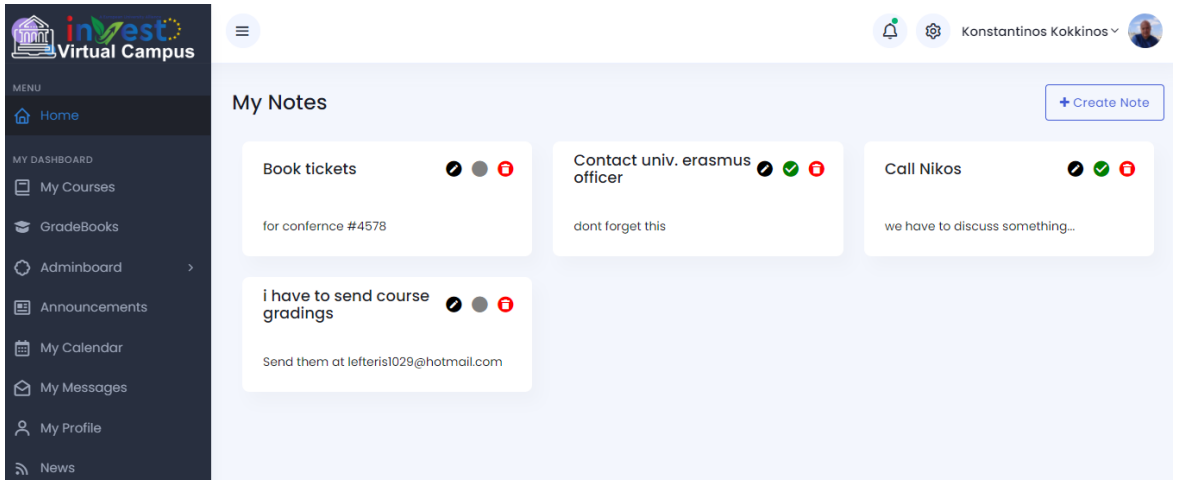
Exercise 5 – My Notes

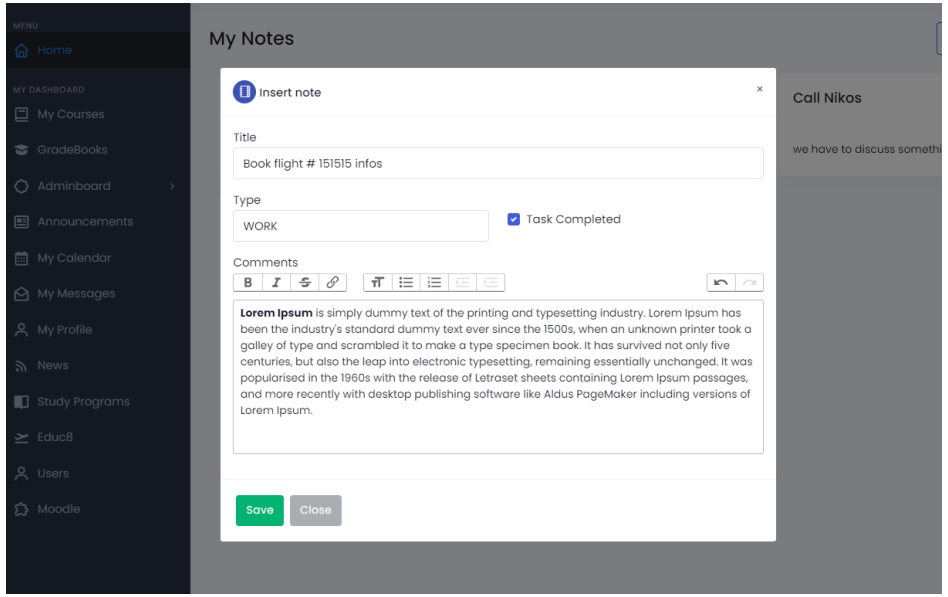
Steps

- From the top navigation menu, find ‘My Notes’ item
- Find all the notes you have created in your personal dashboard
- Select ‘Create Note’ to add a new record
- Enter your information and press ‘Save’
- Try to edit, delete or mark the note as ‘Completed’

Scenario

User wants to view and manage his personal notes





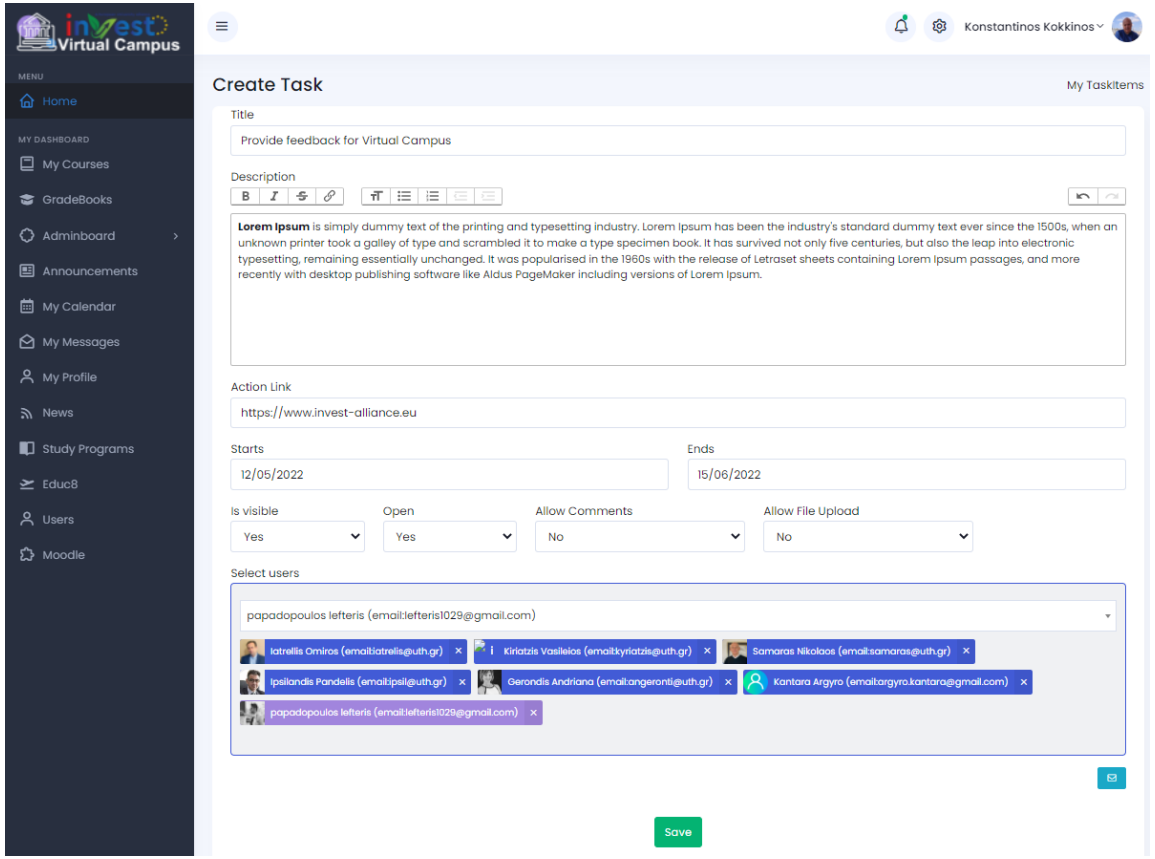
Exercise 6 – My Tasks (Create)

Steps

- From the top navigation menu, find ‘My Tasks’ item
- If your account has access you will be able to create ‘Task Assignments’
- Enter your title, some description, task duration and an action link if needed
- Make the task ‘open’ and ‘visible’ so that other users can view it in their dashboard and also change the completion status
- Allow comments and file uploads if needed
- Select your users
- Press ‘save’
- You should be able to see the newly created record in your task dashboard (section ‘Tasks I have assigned’)
- Participants should receive notifications and be able to view the task

Scenario

User wants to create a new task assignment for a specific group of users



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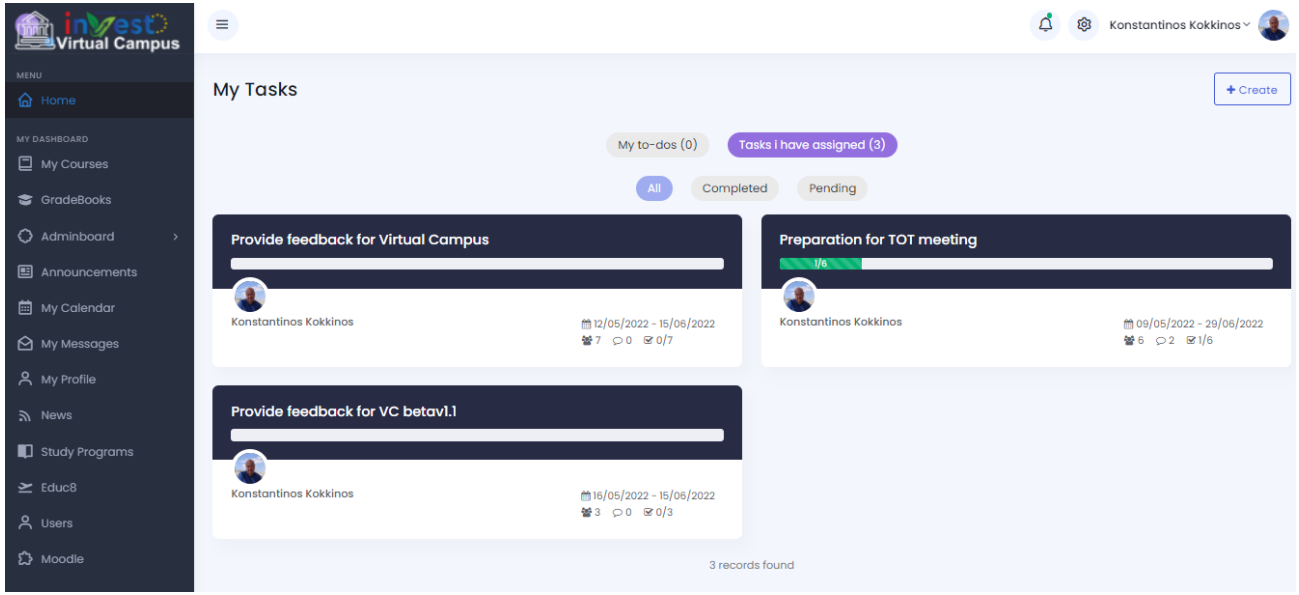
Exercise 6 – My Tasks

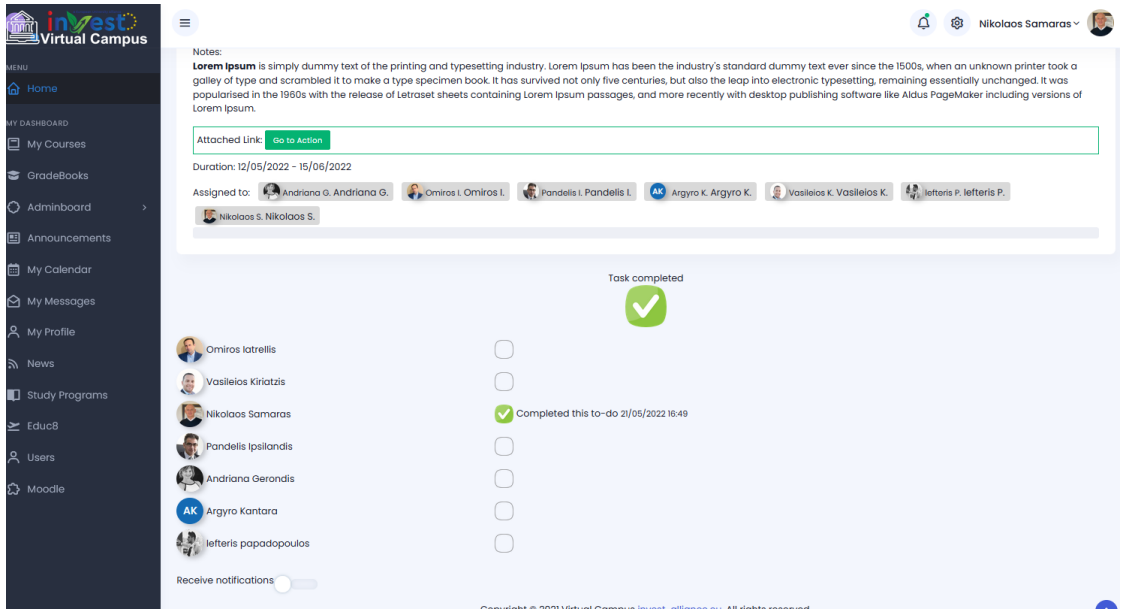
Steps

- From the top navigation menu, find ‘My Tasks’ item
- Go to section ‘My To-dos’
- Select the task (or filter them to see your pending-completed assignments)
- Enter comments and upload files (if allowed based on the initial settings)
- Mark the task as ‘Completed’ by toggling the main checkbox

Scenario

User wants to view created or assigned tasks and make some actions





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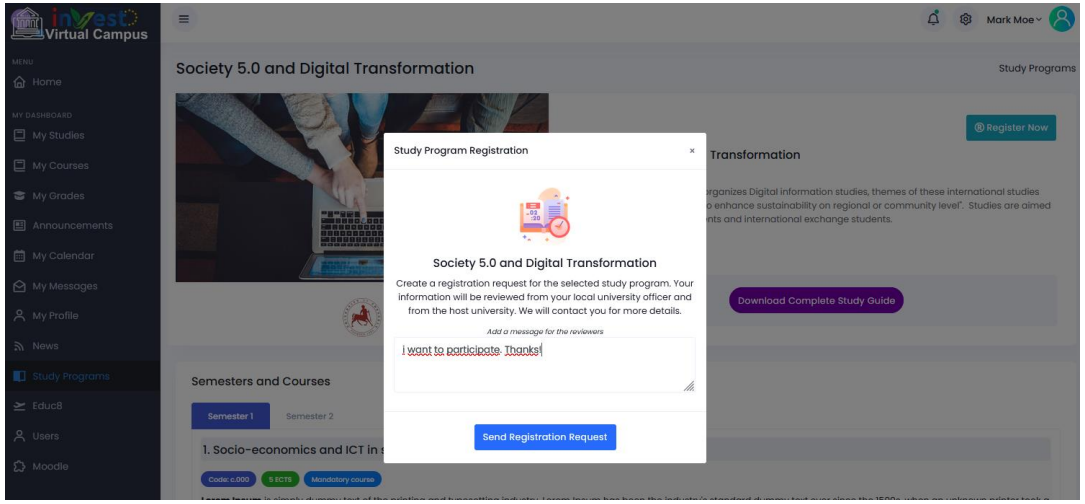
Exercise 7 – Study registration request

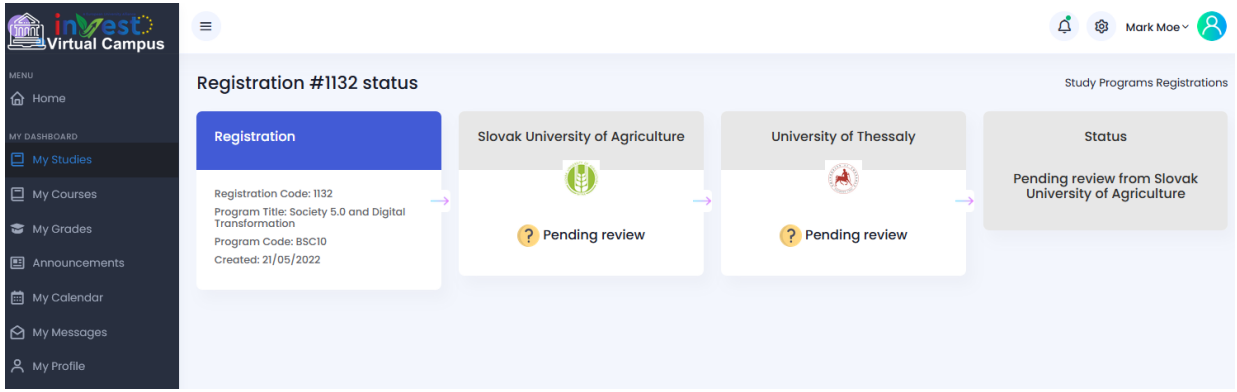
Steps

- Login to the system as a student
- Navigate to the study programs section
- Select a program and if available press the ‘Register now’
- Enter your message and send the request
- Your request will be submitted to the system and partner universities will be able to review it
- You can monitor current progress for all your registrations from the menu ‘My Studies’
- Select a registration and open it to view current status

Scenario

User wants to view and manage his personal notes





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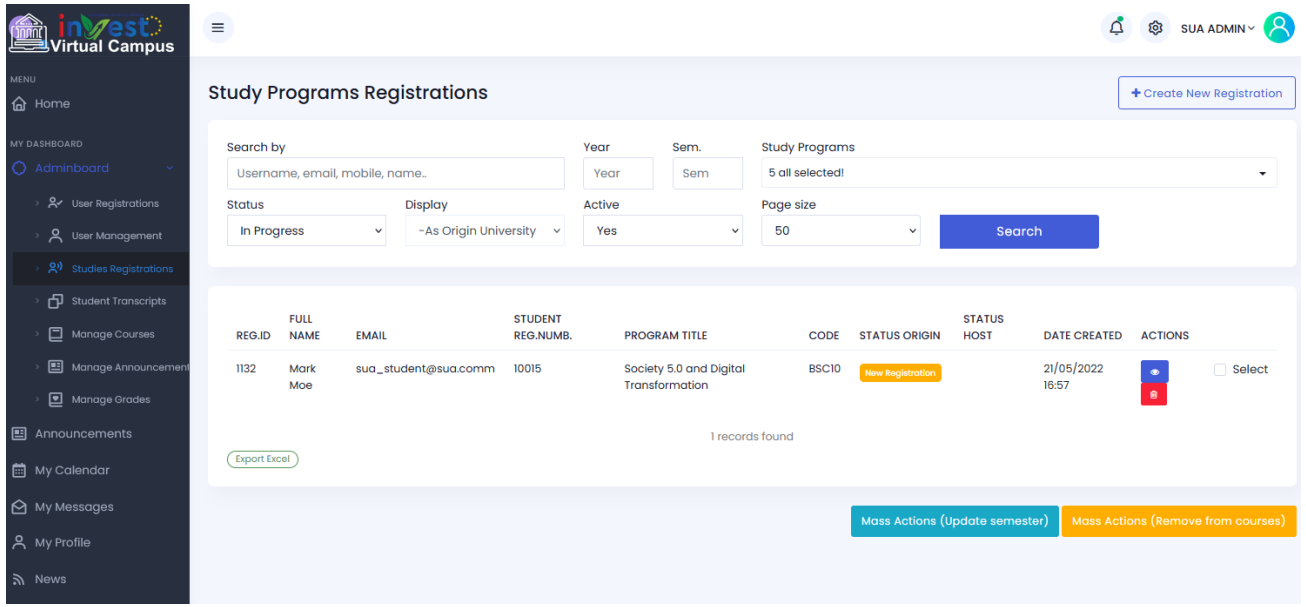
Exercise 8 – Review Study Registration

Scenario

A student from SUA wants to register for the study program Society 5.0 hosted by UTH. Student creates a new registration request and both parties should review the request and make necessary actions

Steps for Student's origin university

- From the left navigation menu, find 'AdminBoard' item and select 'Studies Registrations'
- Apply some filters as search criteria if needed and find the registration request.
- Select it to open it in a new page



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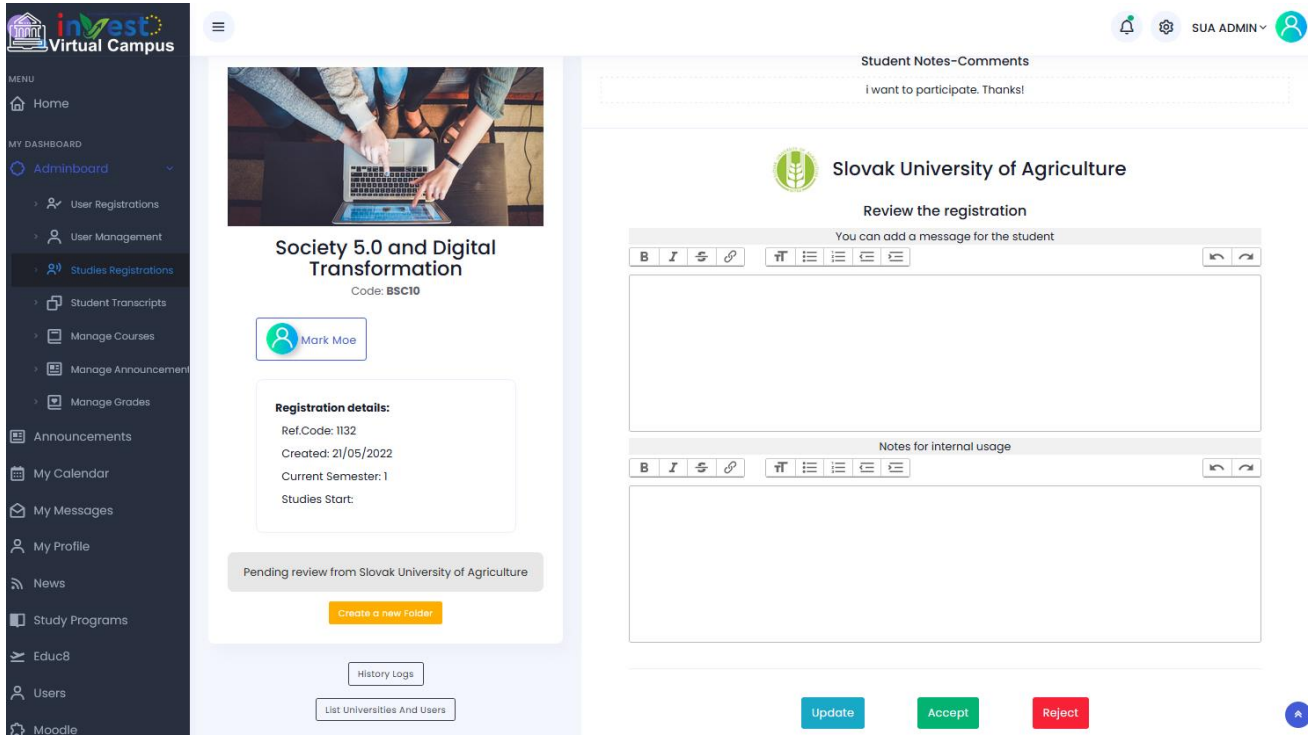
Exercise 8 – Review Study Registration

Steps for Student's origin university

- At this stage the university officer is responsible to review the student request and check if he meets all requirements in order to join the selected study program.
- User can update the current request with some extra messages for the student or for the Host university (for internal usage)
- Finally user will 'Approve' or 'Reject' the request
- 'Accept' the form
- Check for new notifications generated by the system (Student can also see the progress)
- Host university now will have to review the request
- Users can open/create a new folder in order to share files needed for student review



* If approved, the request will be forwarded to the host University to also review it. If rejected all parties will get informed and student can create a new one.
* 'Accept' and 'Reject' actions are final and can be modified only from the admins.

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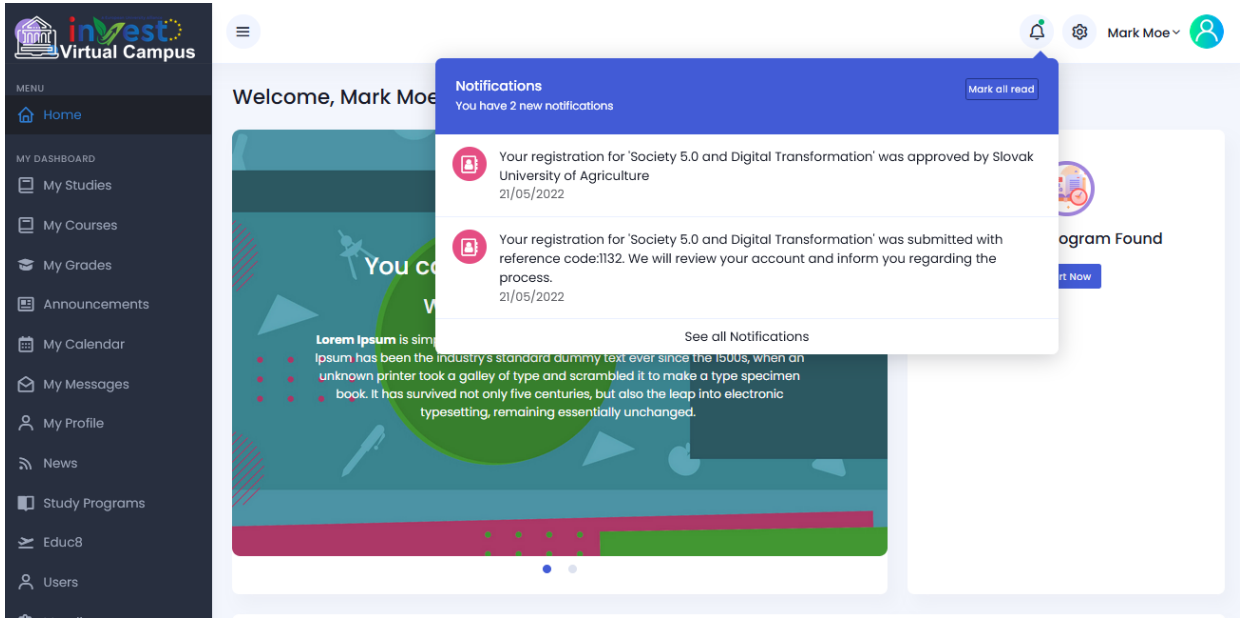
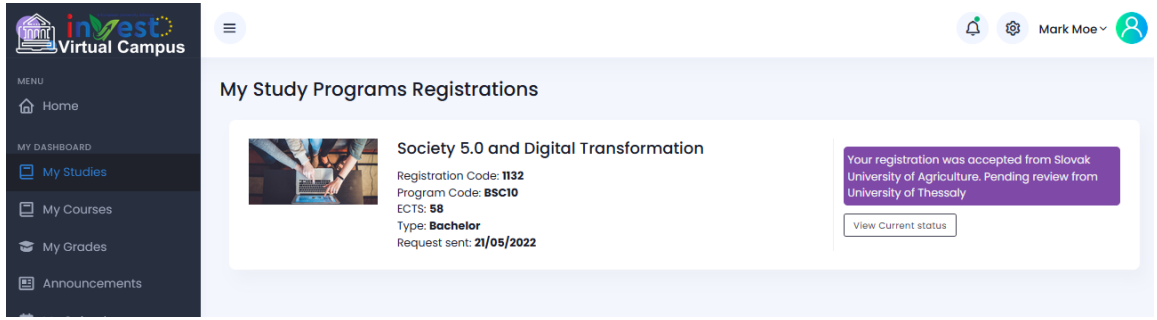
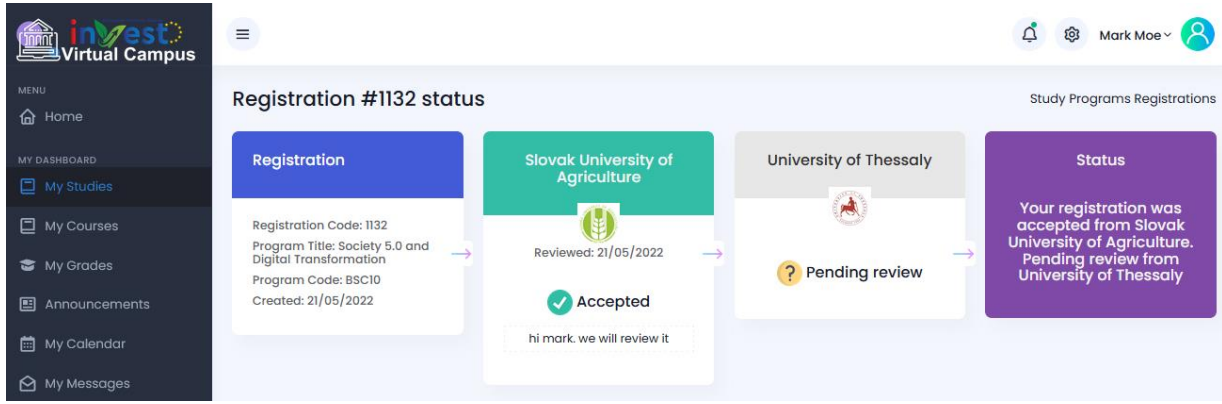
Exercise 8 – Review Study Registration





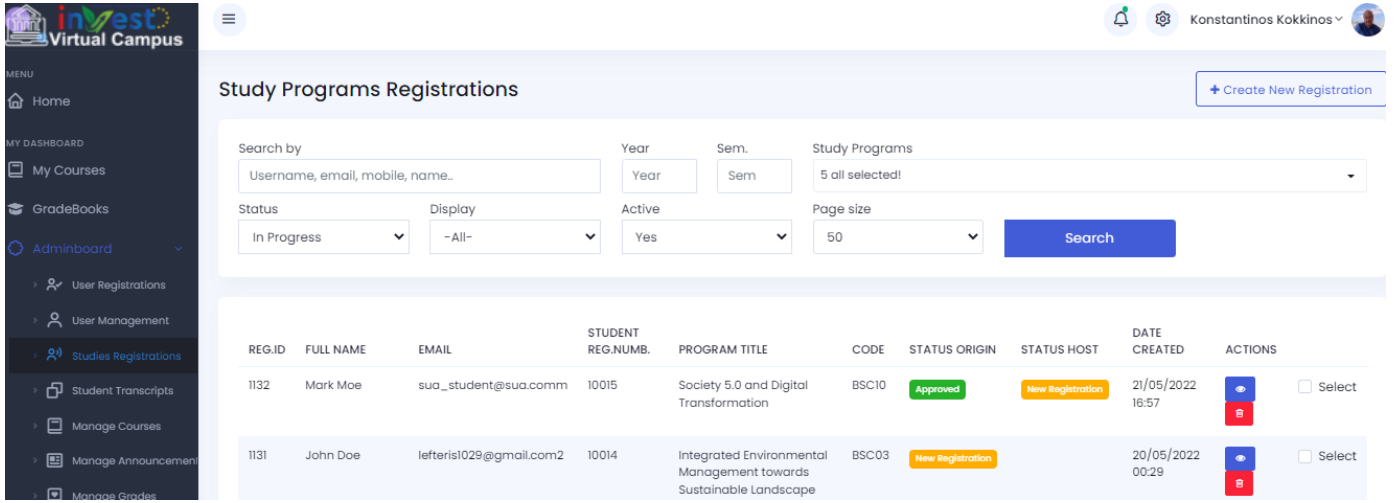


* Student will receive notifications by the system for each action and will be able to view the current status of his registration request in his portal

Exercise 8 – Review Study Registration

Steps for Program's Host university

- At this stage the host university will review the student in order to join the selected study program.
- User can update the current request with some extra messages for the student or for the Origin university (for internal usage)
- 'Accept' the request
- All parties will get notifications and emails
- Student has access to study program's courses, announcements and all related material



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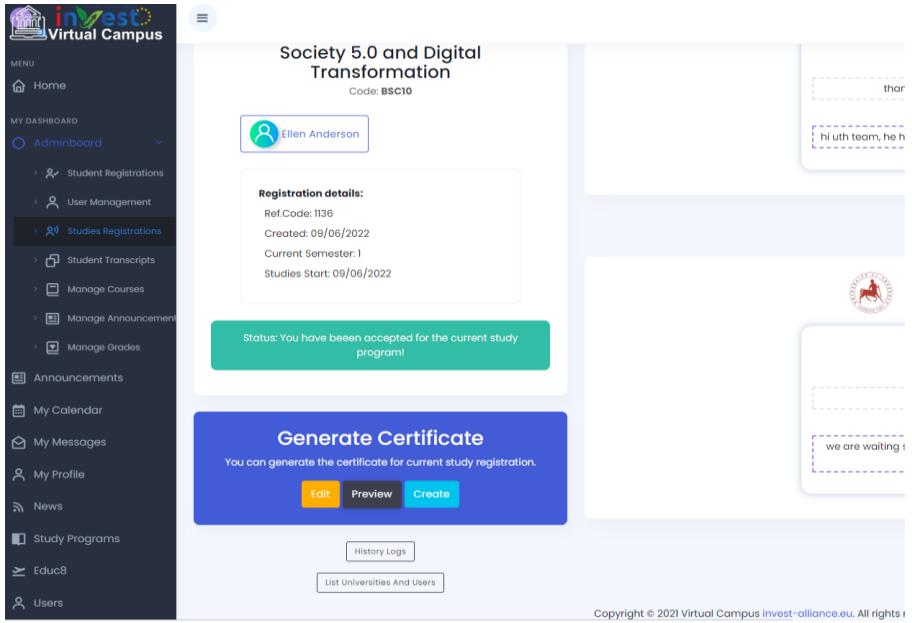
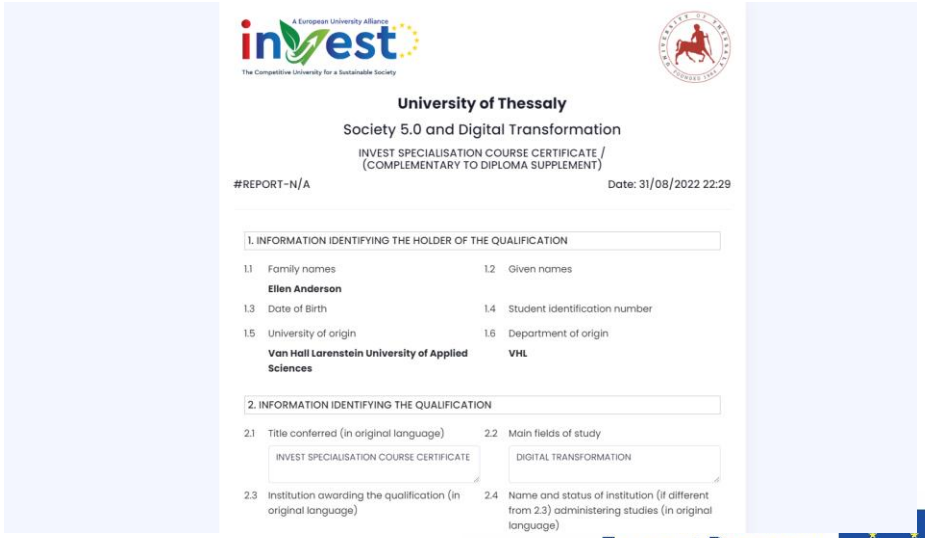
Exercise 8 – Review Study Registration

Certificate Generation

- Host university can use the predefined PDF template in order to create a certificate
- User can edit the input form fields, upload visual signatures or logos and preview the final certificate
- Finally we can create a PDF from the above template





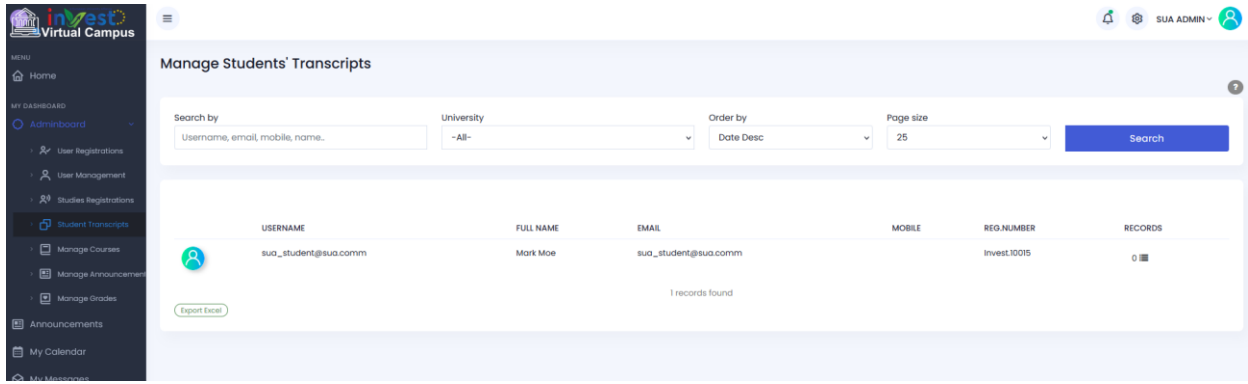
Exercise 9 – Student Transcripts

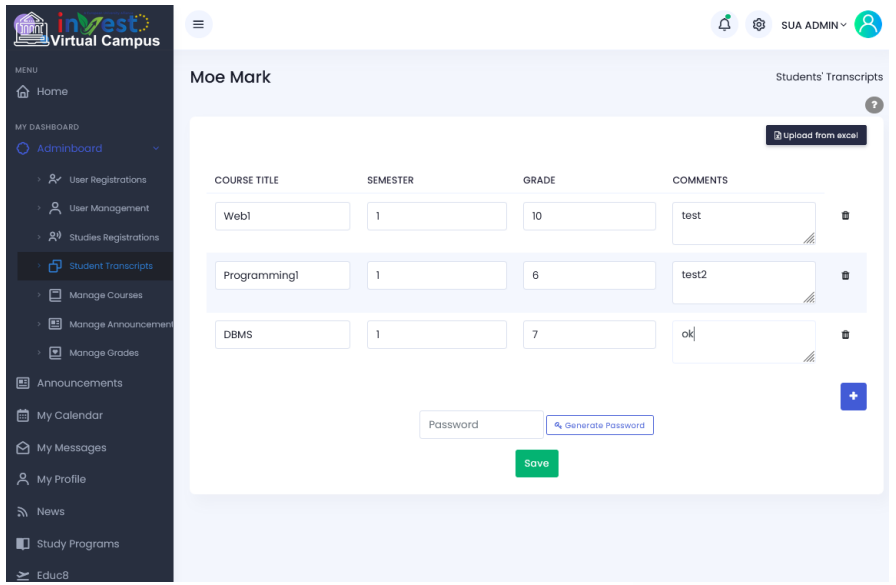
Steps

- From the left navigation menu find ‘Adminboard’ item and select ‘Student Transcripts’
- If your account has access you will be able to see a list of your university registered students
- Select a student to open the transcripts’ page
- You can enter manually the grades for the courses or upload an excel file based on a predefined template
- In order to submit the records you will have to provide an extra security password.
- If you have OTP enabled and the app installed in your mobile device you can enter the OTP code.
- Otherwise you can generate a new password which will be emailed to your university email. Open the email and fill the password
- Finally submit the transcrips.
- You will see the records counter updated in the main display list for the selected student.

Scenario

Enter transcripts for students





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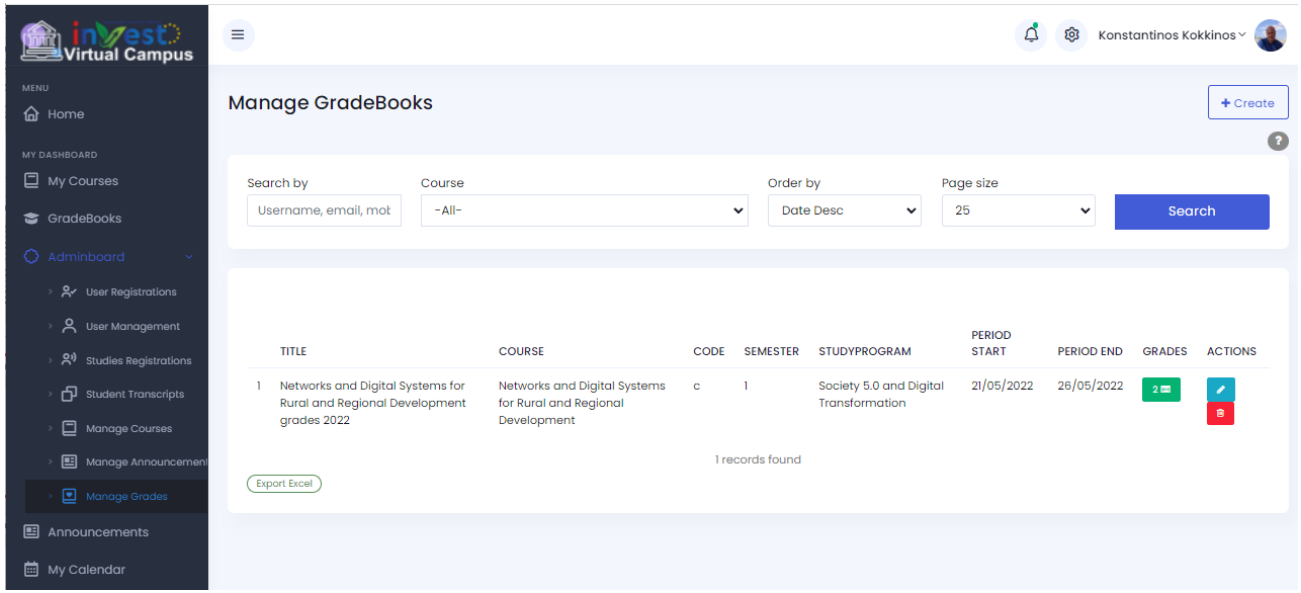
Exercise 10 - Gradebooks

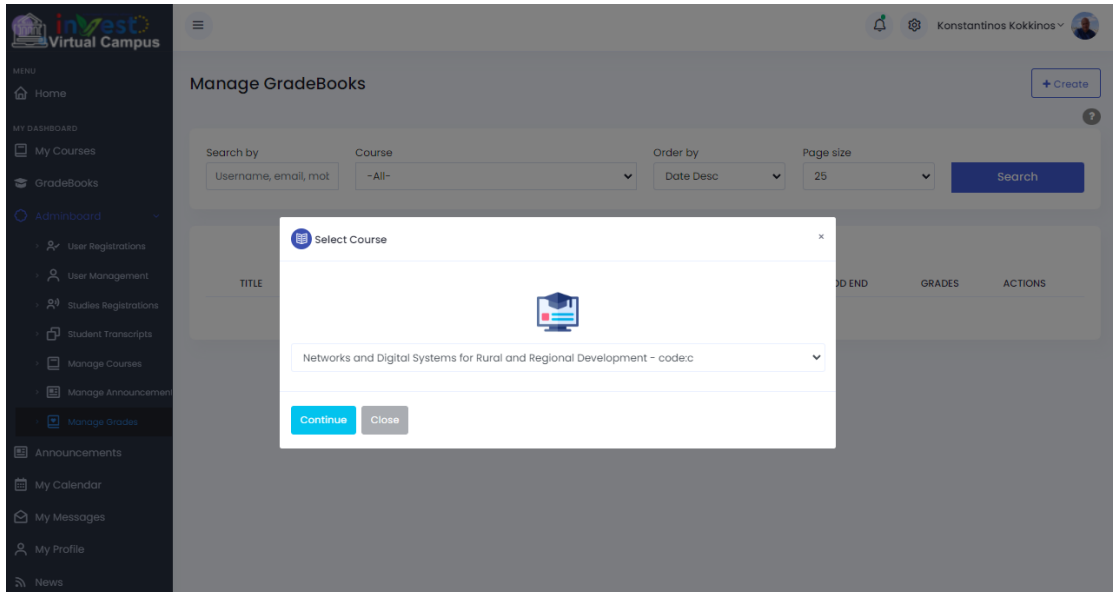
Steps

- From the left navigation menu go to ‘Gradebooks’ or find ‘Adminboard’ item and select ‘Manage Grades’ depending on your account role and access policy
- Select ‘Create’ and choose the course for which you want to create the gradebook
- Press ‘Continue’

Scenario

Teacher or university staff wants to enter grades for students





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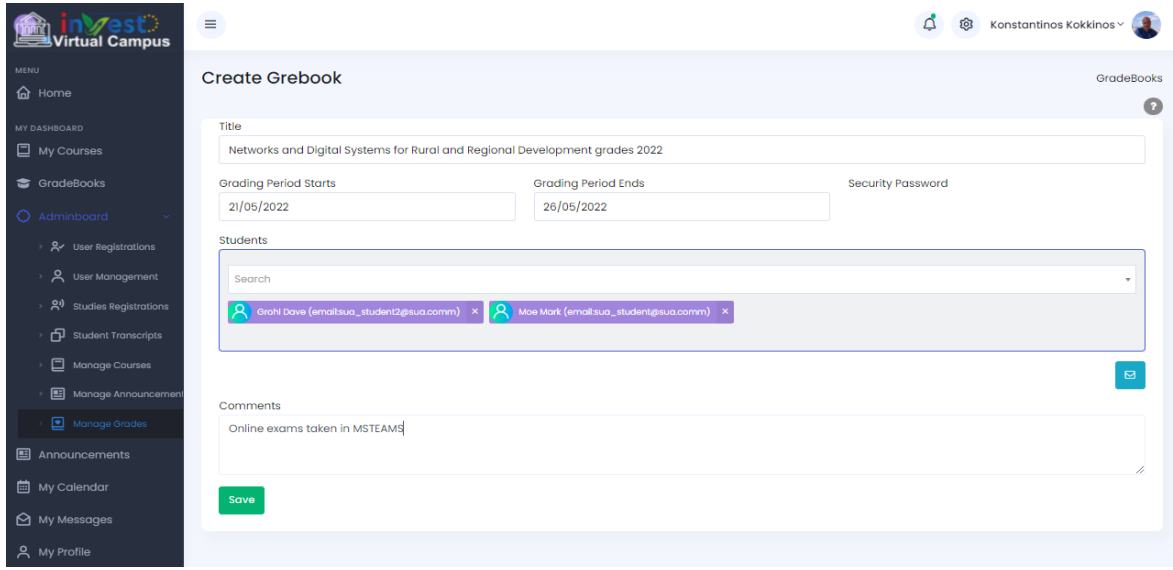
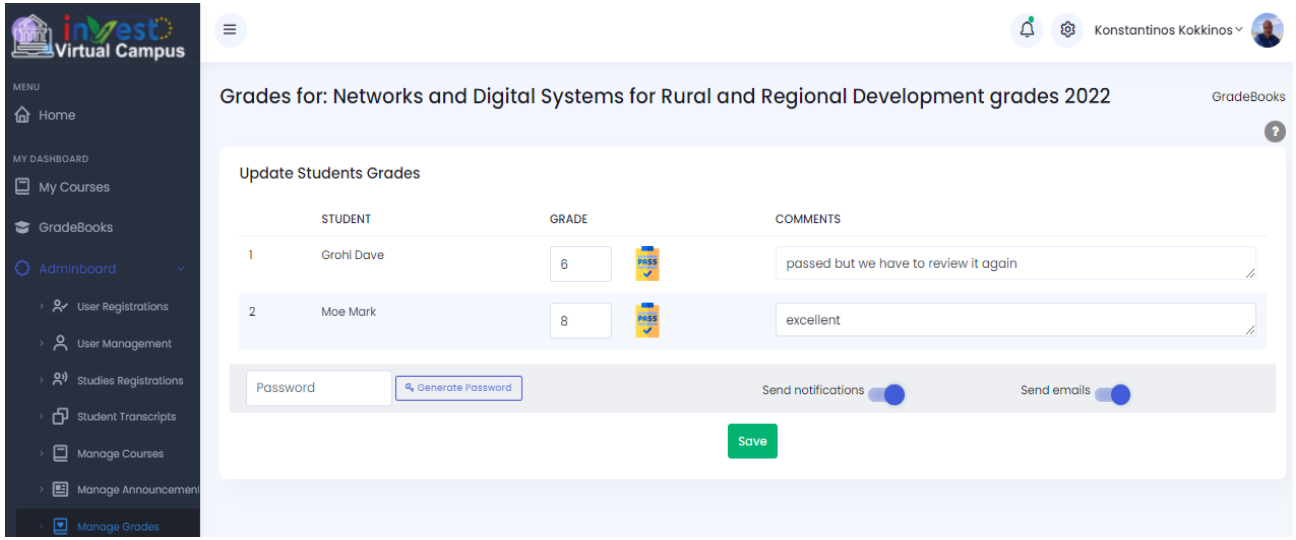
Exercise 10- Gradebooks

Steps

- You can enter a title (the system automatically generates a default one), select the grading period, review active and approved students for the course based on which you will enter the grades and finally add some comments if needed.
- Navigate to the main gradebooks list and select the ‘Grades’ icon
- You will be redirected to the grades page for the previously created gradebook.
- All registered students will appear
- Enter the grade and some comments if you want
- In order to continue you will have to provide and extra security code (either from the OTP application, or by generating a password which will be emailed to your account
- Submit the grades
- Students will receive notifications and emails





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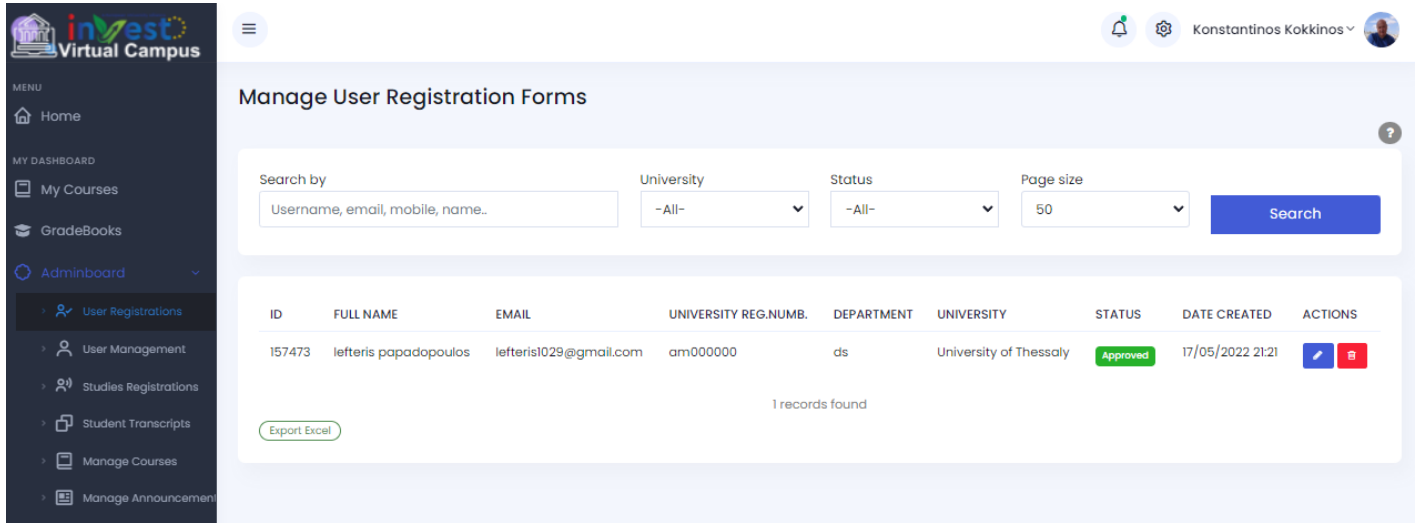
Exercise 11 – User registrations

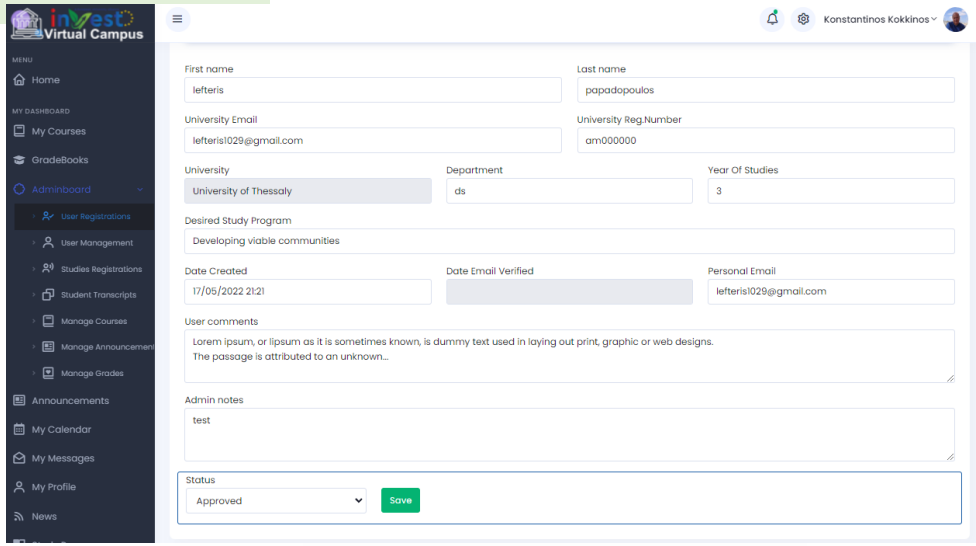
Steps

- From the left menu find ‘Adminboard’ item and select ‘User registrations’
- Apply filters or search criteria and view the results
- Select the registration ticket and view student details
- Review the information and mark the ticket as ‘approved’ or ‘rejected’
- If ‘approved’ the next step would be the creation of the user local identity account to the system
- If your account has ‘User Account management’ access you can continue, otherwise you can create a task to corresponding administrative in order to finalize the process

Scenario

Student wants to register for a virtual campus account and submits a ticket request through the provided online form





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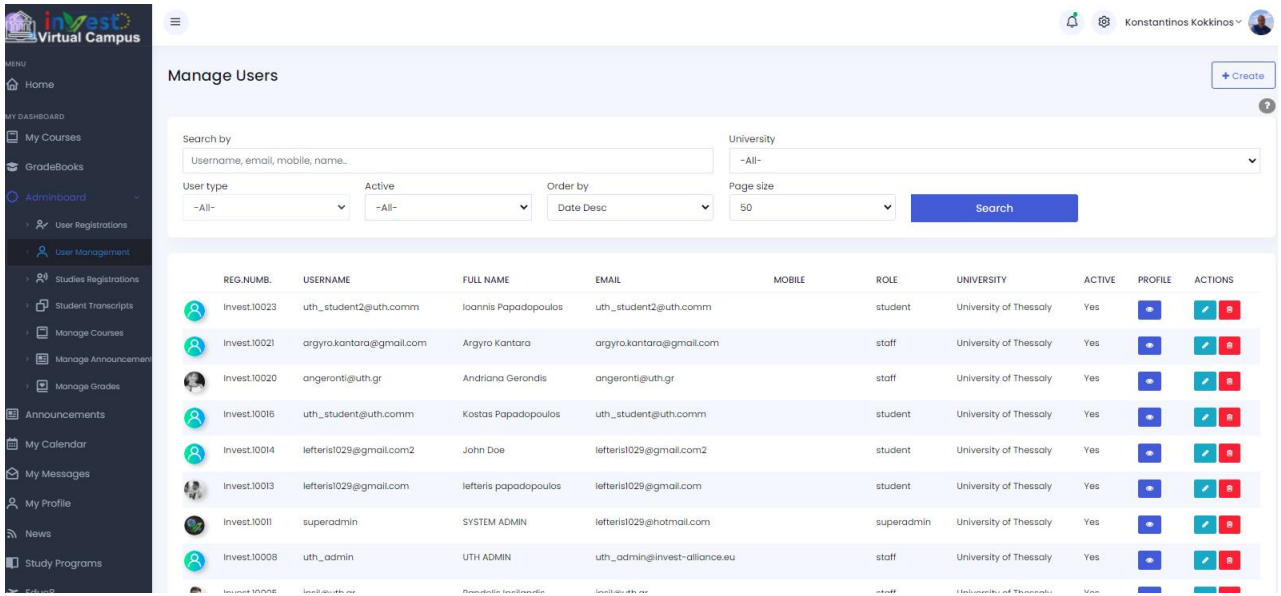
Exercise 12 – User Accounts

Steps

- From the left navigation menu find ‘Adminboard’ item and select ‘User Management’
- You can view a list of all available user accounts for your university
- Apply some search criteria
- You can navigate to a user profile if needed
- If you want to edit an account select the corresponding record
- Now press ‘Create’ button to start the process of generating a new local identity

Scenario

Create a new user account with access to Virtual Campus



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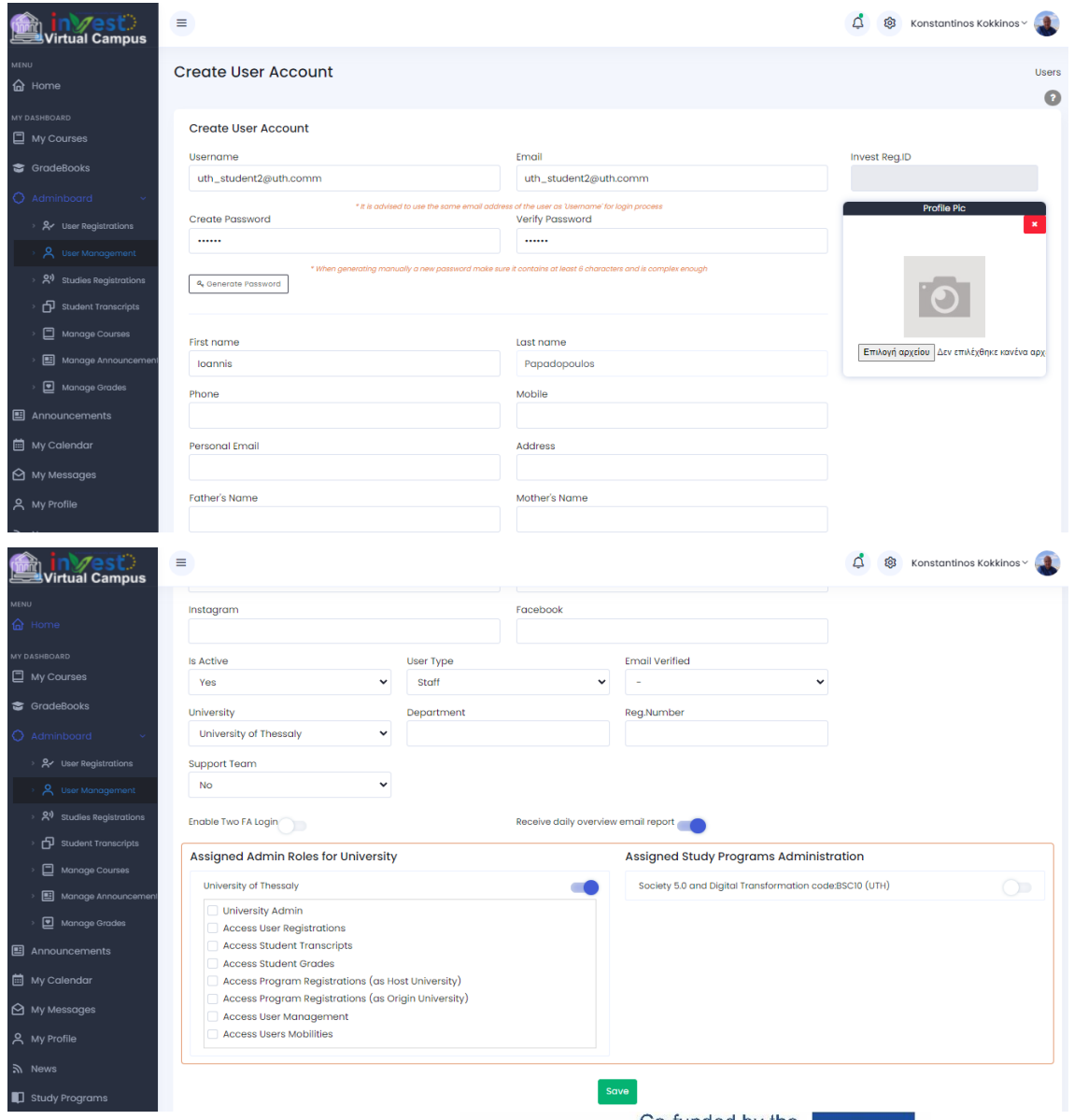
Exercise 12 – User Accounts

Steps

- Enter username and email (* it is advised to use the university email in both fields)
- Create a password for the user or generate a random one (passwords should be at least 6 chars long)
- Fill user personal information such as first and last name, address, contact and social details if available
- Select a usertype and set the account to be ‘active’
- Enter the university,department and univ. registration number
- Based on the usertype you can assign some extra roles to the user (depending on the roles user will have access to various areas of the application and be able to make actions based on those privileges)
- Press ‘Save’ to create the user
- When a new user is being created he will be notified through email with his credentials
- User can now login to Virtual campus and use the app



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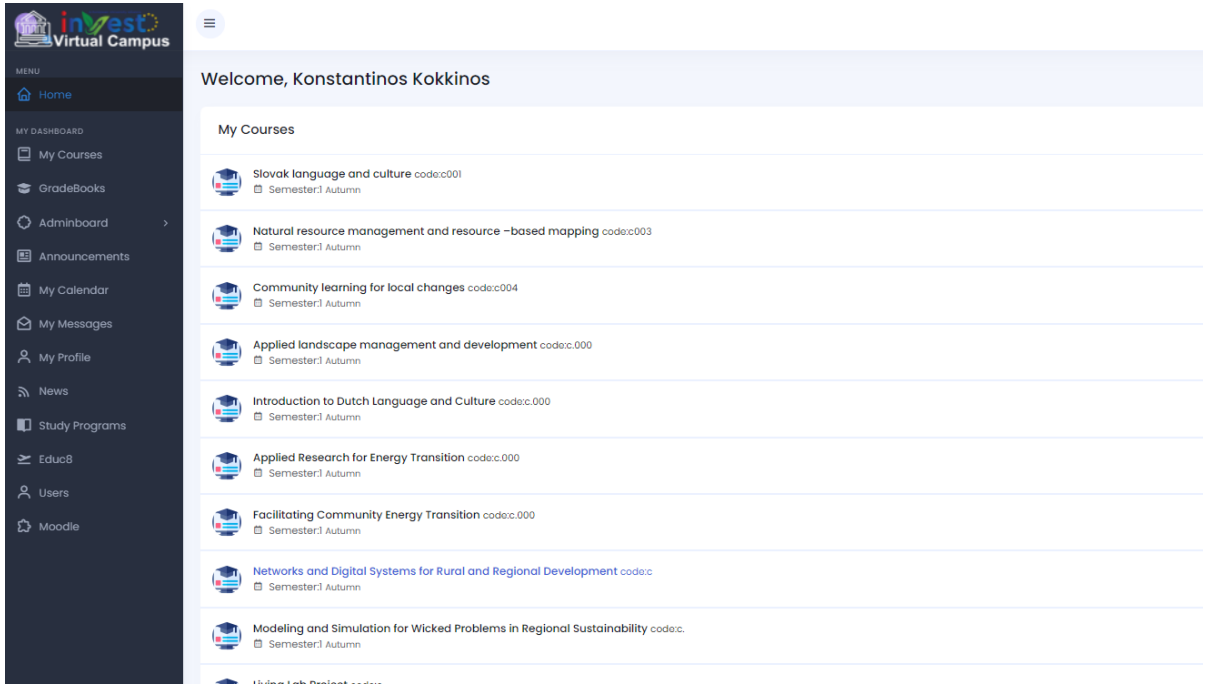
Exercise 13 – Manage courses

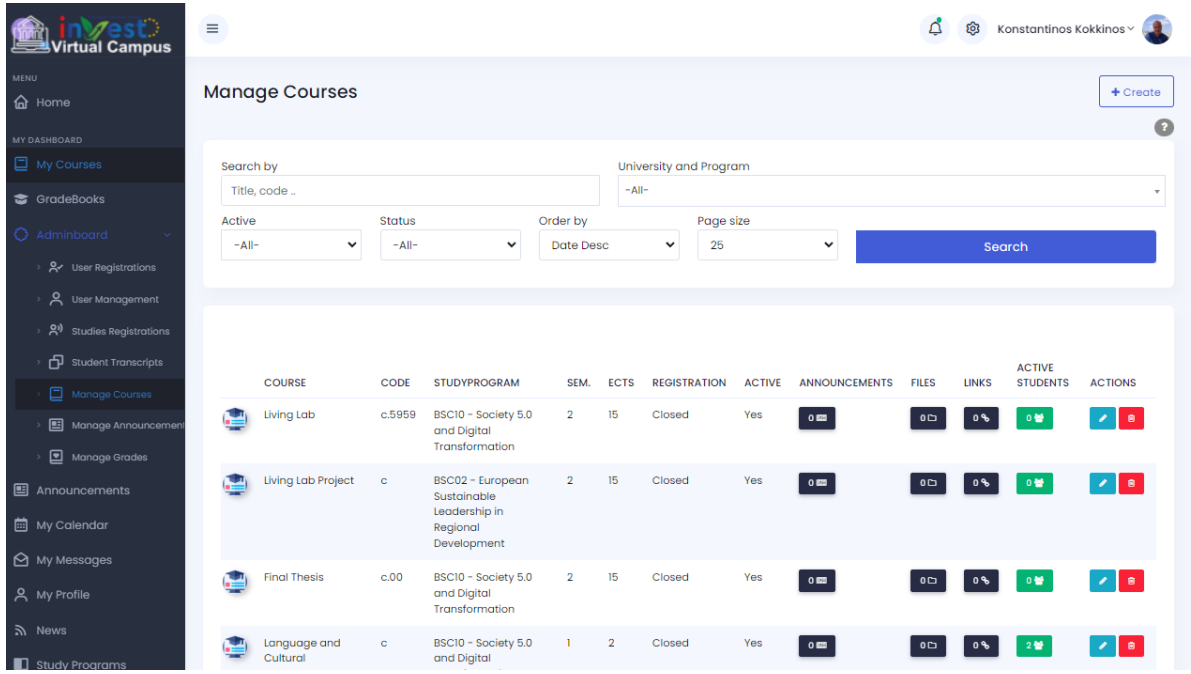
Steps

- If user is Teacher we can select the courses we are being assigned to as ‘Main instructor’ in the dashboard page.
- Another way of accessing courses is from the left navigation menu. Find ‘Adminboard’ and select ‘Manage courses’

Scenario

Teacher or university admin wants to manage material for a course (announcements, files, links, registrations)





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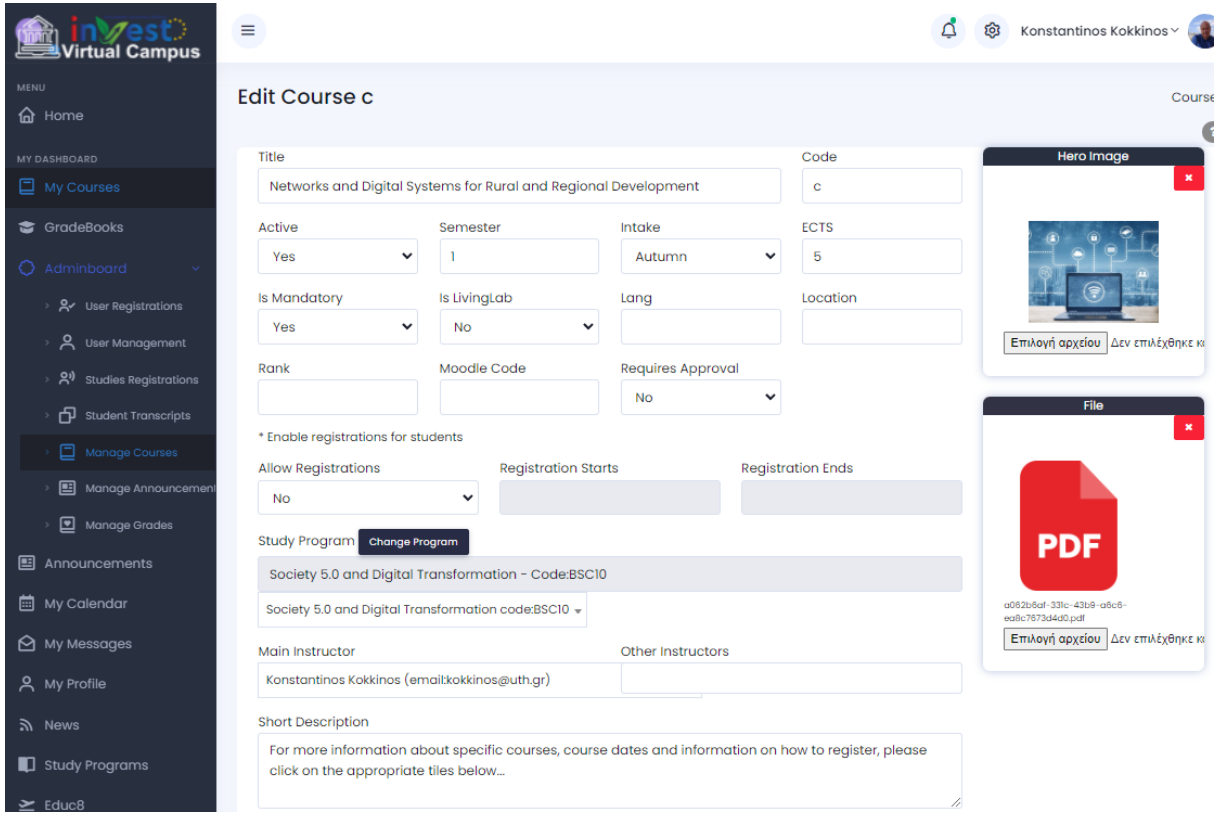
Exercise 13 – Manage courses

Edit course details

If your account has necessary access privileges you can edit or create courses

- From the top navbar select the ‘edit’ icon
- You will be redirected to course editor page
- You have to fill some required fields (such as title, code, semester, ects etc)
- We can set the instructors, the course description, syllabus, objectives etc
- We can set the type of course, set up registration information and upload an image or a file



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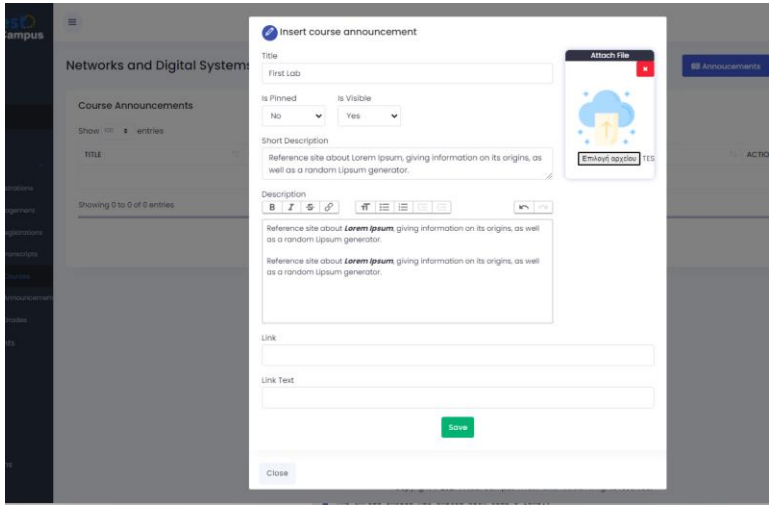
Exercise 13 – Manage Courses

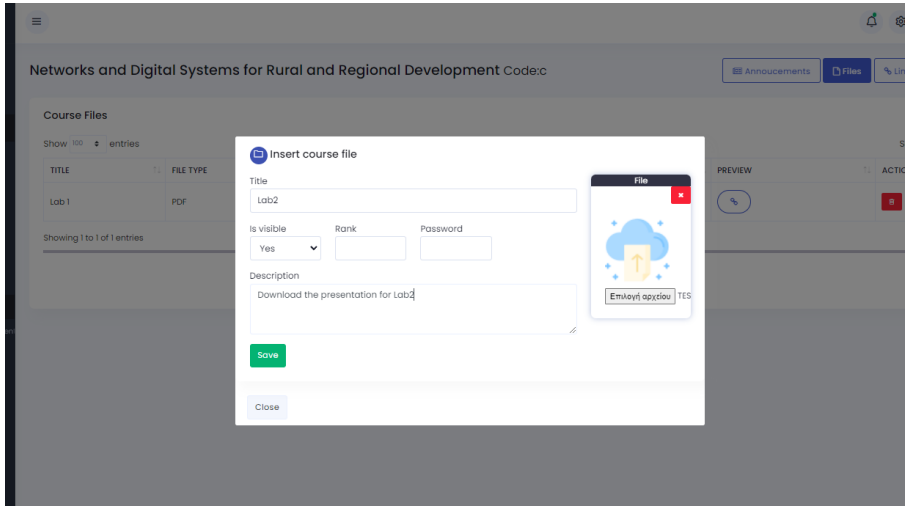
Steps for Announcements management

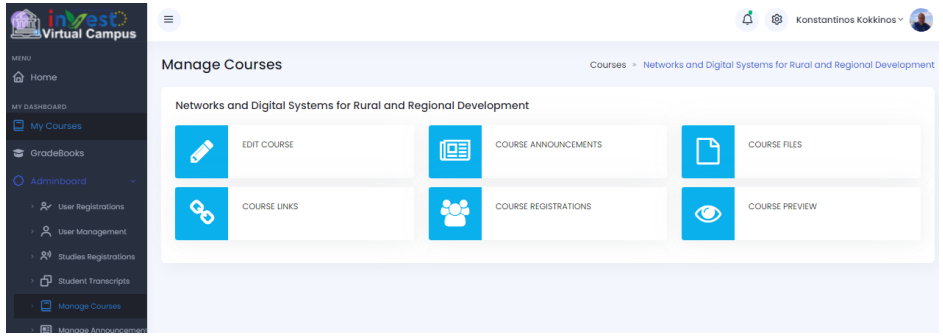
- Select your course and enter the management menu. From the top navigation bar select announcements
- Press create to open a new modal window
- Fill the title, description and upload your attachment if available
- Save the record
- Students registered in the course will receive a notification
- Try to edit or delete

Steps for Files and links management

- Follow the same process described above







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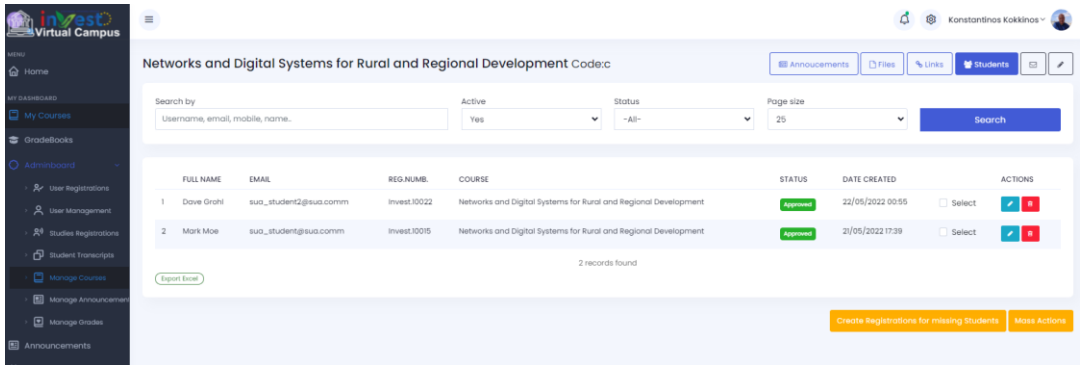
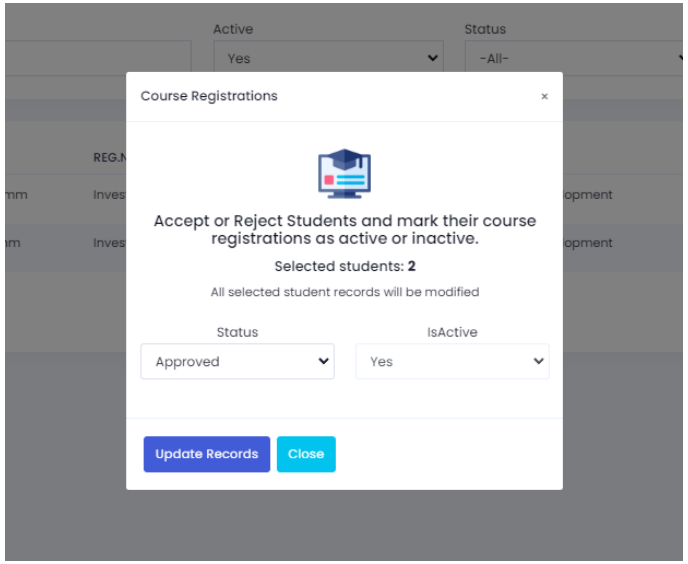
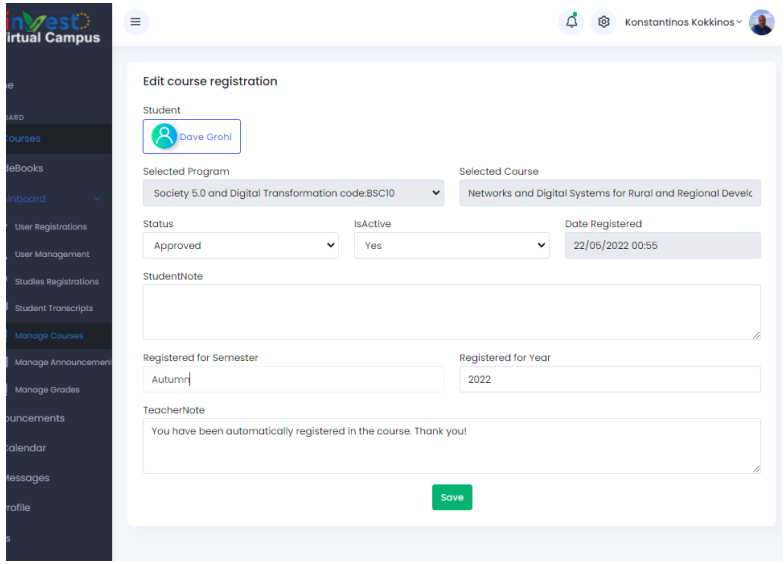
Exercise 13 – Manage Courses

Manage Student Course Registrations

- From the top navbar menu select ‘Students’ tab
- Display a list of all registered students for the selected course
- Apply filters and search criteria if needed
- If you have pending registrations you can edit the records and change the status by selecting the row
- You can make mass actions in the display list by checking the desired records and pressing the ‘Mass Actions’ button. A new modal window pops up in which you can set the ‘registration’ and ‘active’ status of all the records
- If needed you can create mass student registrations for your course
- Try to edit some records. Modifying these data will affect the student’s access to the course material and also the current active gradebook (if not submitted)







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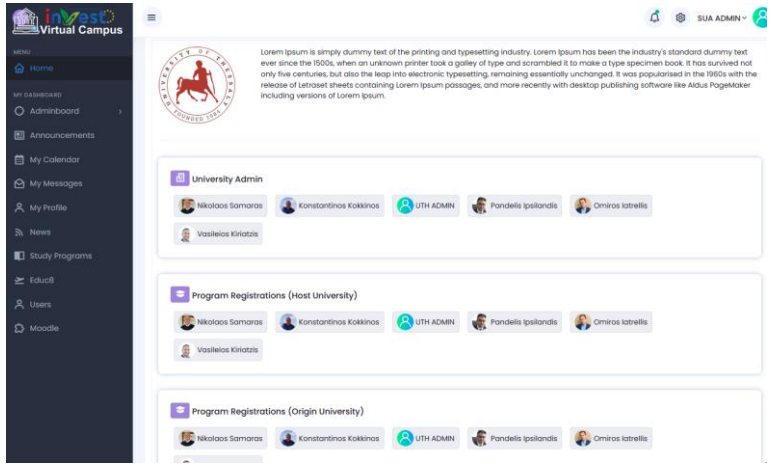
Exercise – Support Area

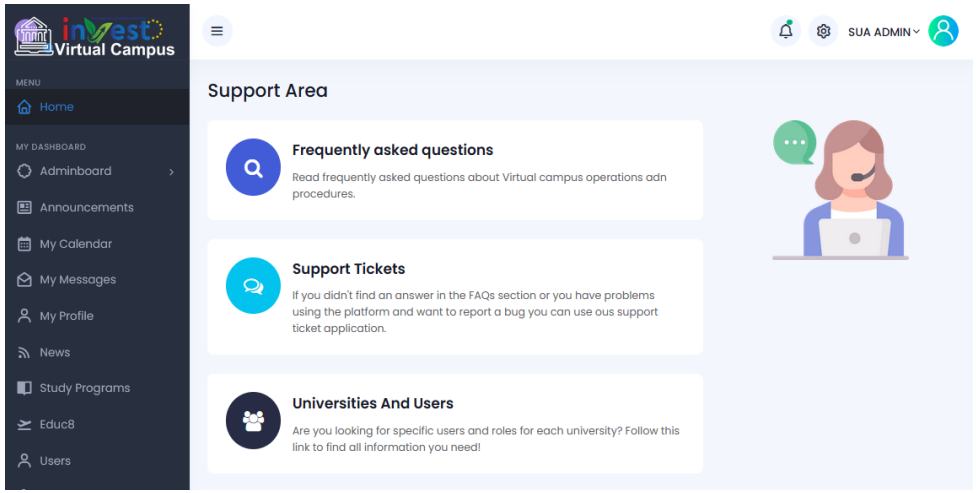
Steps

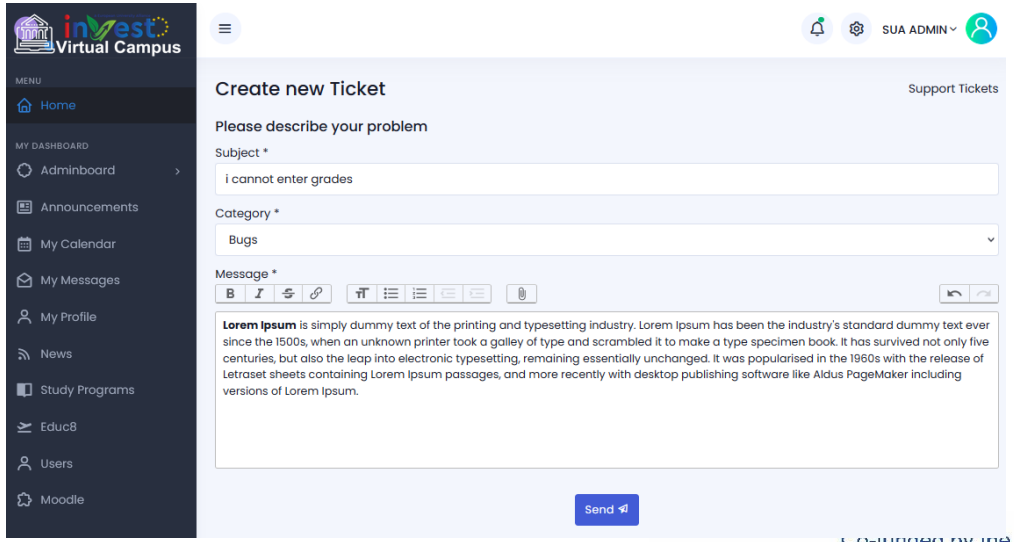
- From the top menu bar open your profile quick links and select ‘Need Help?’ item
- Navigate to the support area
- Search in FAQs section
- View the departmental organization for the partner universities regarding in the Virtual Campus Platform
- Go to Support tickets and create a new ticket with your request

Scenario

Search for help in FAQs section.







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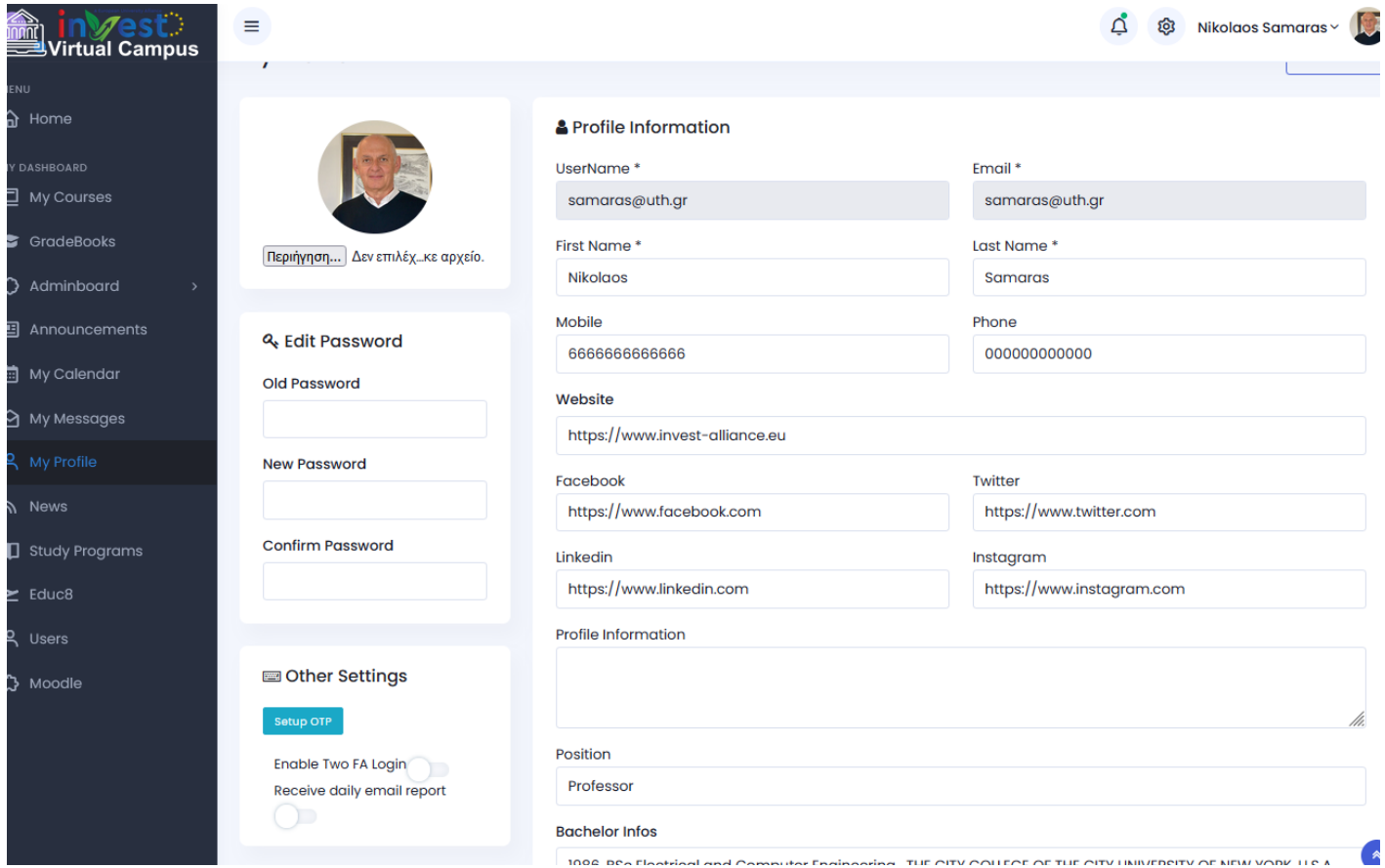
Exercise – Update profile

Steps

- From the top menu bar open your profile quick links and select ‘Profile’ item
- Your personal profile page appears with all available data
- For teachers there are also some extra available fields
- Enter you personal details
- Change your profile image
- Update your password
- Change your account settings
- Setup OTP authentication

Scenario

Update your profile info.



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Thank you!

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