



CREATION OF AN INFORMATION SYSTEM FOR THE EU

GROUP 25

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Executive summary

The aim of this project and the team is to solve the problem posed by the EHRC (Research Ethics Committee) of the University of Macedonia. The EHRC, while carrying out its mission, noticed certain problems, those of loss of valuable time and the confusion in the exchange of emails, due to the large volume of applications. Therefore, we were asked to create an information system that would make the procedures faster, reduce errors, and help in the correct filing of applications. Initially, in the preparation phase, through various economic and technical studies, we concluded that the information system requested was feasible, low risk and would be profitable. Consequently, we moved to the second phase, that of analysis, where we decided that the magnitude of the changes we would make would follow the Business Process Improvement (BPI) method, and following the steps of analysis (Business Modeling, Requirements Gathering, Functional Modeling, Verbal Descriptions) we arrived at the basic functions and the basic form of the system. Then, we proceeded to the design stage, where with class, object, and sequence diagrams , we came to the final modeling of our system to reach the implementation stage and through the appropriate programming language (in this case Java) we created the specific information system.

HEY suction

An information system is a set of interrelated elements that collect, process, store and distribute information in order to communicate, support business processes, make decisions and create new products and services. The EHRC of the University of Macedonia decided to request the development of such a system to assist its mission, because with the current way of operation, it considers that time is wasted and there is confusion with the exchange of all these emails especially when there are many requests. By creating an information system, there will be better organization in the application file, many processes will be automated and the users of the system will communicate better making their work more efficient.

System request

Project owner	Mr. Ioannis Manos, President of the EIDE.
Business need	The creation of this information system aims to save time and resources, but also to manage more efficiently the applications received by EIDE.
Business requirements	The first step is to create a form that applicants will be asked to fill in. The secretariat, through a system, will receive and check the applications and send for resubmission those that have not been correctly filled in, and forward those that have been correctly filled in to the President for checking.
Business value	In this way, financial resources will be saved since our company will use free programs and software. Through the system it is certain that every application will be checked, as until recently the applicants sent emails to the secretariat, which may have resulted in some applications being lost or not read due to email congestion. In addition, the secretariat's working time will be reduced due to the sorting of applications, and also that of the chairman, who will now only receive serious and worthy proposals.

Specific issues or restrictions	<p>It is possible that applicants may not meet the deadline for submitting the application form and may be forced to email the EHRC secretariat in order to obtain an extension or to have their application accepted.</p> <p>Also, the familiarity of the members of the EHRC with the operation of the information system is not given, but this can be addressed by fast-paced seminars by special professors of the University of Macedonia free of charge.</p>
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Corporate Feasibility - Organizational Feasibility

This information system will be perfectly aligned with the strategy of the EIDE as it will make communication between its members easier and faster. This will result in a reduction in the time taken to process procedures and a reduction in any errors due to slow or incorrect communication.

Stakeholder analysis:

Proponents: Anastasia Liourou, Yannis Kalaitzis, Eva Dandika, Maria Arabatzi, Stavros Ameranis

Administration of the Commission: President of the EHRC

System users: EHRC Chair, EHRC Secretariat, full and alternate members of the EHRC, faculty members and/or Scientific Directors of funded projects managed by the ELKE.

Technical Feasibility - Technical Feasibility

Preparing the start of the project - i.e. the creation of the information system requested by the EIDE - the estimates we have made regarding the development of the project and its technical feasibility -comparing it with other IT systems we have created and taking into account our experience- is that there is a high success rate for the following reasons:

-Great familiarity with the scope of the MA

First of all, we are talking about creating a new MA and not extending an existing one, which means that there will be some changes in the way we

but its nature and complexity will be such that familiarity, both on the part of analysts and users, will be very satisfactory, with users needing little time to understand and get used to it.

- Great familiarity with technology

The quick familiarisation mentioned above is helped by the fact that no new technologies will be used, but the existing ones, i.e. the computers already in use, while the MA will contain elements that are easy to use and most probably the users will have encountered them before in their other actions on the Internet.

- Small project size

Generally speaking, we are talking about creating a relatively small project, so the risk of failure is low. In particular, this is justified firstly by the small size of the development team of the MA, which is estimated at a team of 5 people (with analysts, designers, and developers) and secondly by the short development time estimated at 4 months. Then, the size of the project in terms of the scope of the operational area covered by the EHRC equally justifies the small size of the project, since it will remain the same, as the same people will continue to work, in the same premises, with the same technological equipment. Finally, in terms of capacity, the PC will offer 2 very important advantages to the EHRC: reduction both in communication errors between the EHRC and the teachers concerned, and in the time taken to achieve the procedures. Thus, we naturally understand that there will also be a high degree of project completion as the PC will be able to satisfy the procedures for which it was created, easily, quickly and efficiently.

- High compatibility of the new system with the technologies already existing in the organisation

As mentioned above, the new system will be fully compatible with the existing technology of the EHRC, as it will not require more than the existing computers, while the time and effort needed for users to understand the new way of communicating, receiving and providing data will be minimal.

Economic Feasibility - Economic Feasibility

For the development of any information system, it is essential to carry out a cost-benefit analysis, determine the level of costs and benefits, determine the cash flow, determine the net present value and return on investment and determine the depreciation point. All these elements are necessary to determine the financial risk of the project.

- Identification of benefit costs

We first conducted a cost-benefit analysis for the development of the project and came to the following conclusions: 1) our project consists of development costs. These include the hardware and software to be developed as well as the salaries of the development team. 2) There are no new operational costs. 3) The project will have significant tangible and intangible benefits to the organization as it will significantly reduce the hours of secretarial work and eliminate any overtime, more applications will be serviced, applications will be assessed faster and with fewer errors.

- Determination of the amount of costs and benefits

Operating Expenditure

Hardware and software	1000
Development team salaries	30000

Benefits

Increase in the volume of applications processed	20000
Reduction of secretarial working time	2000
Better processing of applications	10000

Thus the total amount of expenditure amounts to 31000 euros and the benefits to 32000 euros. This is because by evaluating more applications faster and better, more applications get more funding for the organisation to be able to finance the approved research.

- Determination of cash flow

Our project is developed over a period of 4 months. So its operational costs are estimated for the period May - June 2022 but its benefits are long term for the organisation. Therefore :

	2022	2023	2024	2025	Total
Increase in the volume of applications processed	20000	20500	21000	21000	82500
Reduction of secretarial working time	2000	1500	1500	1000	6000
Better processing of applications	10000	10500	11000	11500	43000
Total benefits	32000	32500	33500	33500	131500

Hardware and software	1000	0	0	0	1000
Development team salaries	30000	0	0	0	30000
Total operating costs	31000	0	0	0	31000

- Determination of net value and return on investment and depreciation point

	2022	2023	2024	2025	Total
Increase in the volume of applications processed	20000	20500	21000	21000	82500
Reduction of secretarial working time	2000	1500	1500	1000	6000
Better processing of applications	10000	10500	11000	11500	43000
Total benefits	32000	32500	33500	33500	131500
PA benefits	23520,96	23.888,47	24.623,5	24.623,5	96.656,43
PA of all benefits	23520,96	47.409,43	72.032,93	96.656,43	
Hardware and software	1000	0	0	0	1000
Development team salaries	30000	0	0	0	30000
Total operating costs	31000	0	0	0	31000
PA expenditure	22.785,93	0	0	0	22.785,92
PA of all expenditure	22.785,92	22.785,92	22.785,92	22.785,92	

Benefits - Costs	1000	32500	33500	33500	100500
Annual NPV	735,04	23.888,47	24.623,5	24.623,5	73.870,51
Accumulated NPV	753,04	24.641,51	49.265,01	73.870,51	
Return on investment					325%
Amortisation point					

Because the accumulated NPV is positive over the whole period there is no payback point, as the investment pays off from the very first year.

BUSINESS PROCESS Improvement (BPI) - Business Process Improvement (BPI)

The business processes followed by the EHRC do not need a radical redesign, as in the case of the BPR strategy, as a small improvement is required. The part of the business processes of the EHRC that we are not satisfied with is the time required to process them. In particular, what needs to be avoided is the long dead times between processes (checking completeness of applications, updating review, updating approval), while at the same time it would be particularly useful to run processes in parallel (such as simultaneous submission-assessment by the proponent). Next, since the EHRC was already using technological equipment, just incorrectly or insufficiently, we felt that proper training of staff is needed so that they learn to use it more efficiently. Therefore, since we are not just talking about automating business processes, we chose to pursue the BPI improvement strategy over BPA.

Business Process List AS- IS

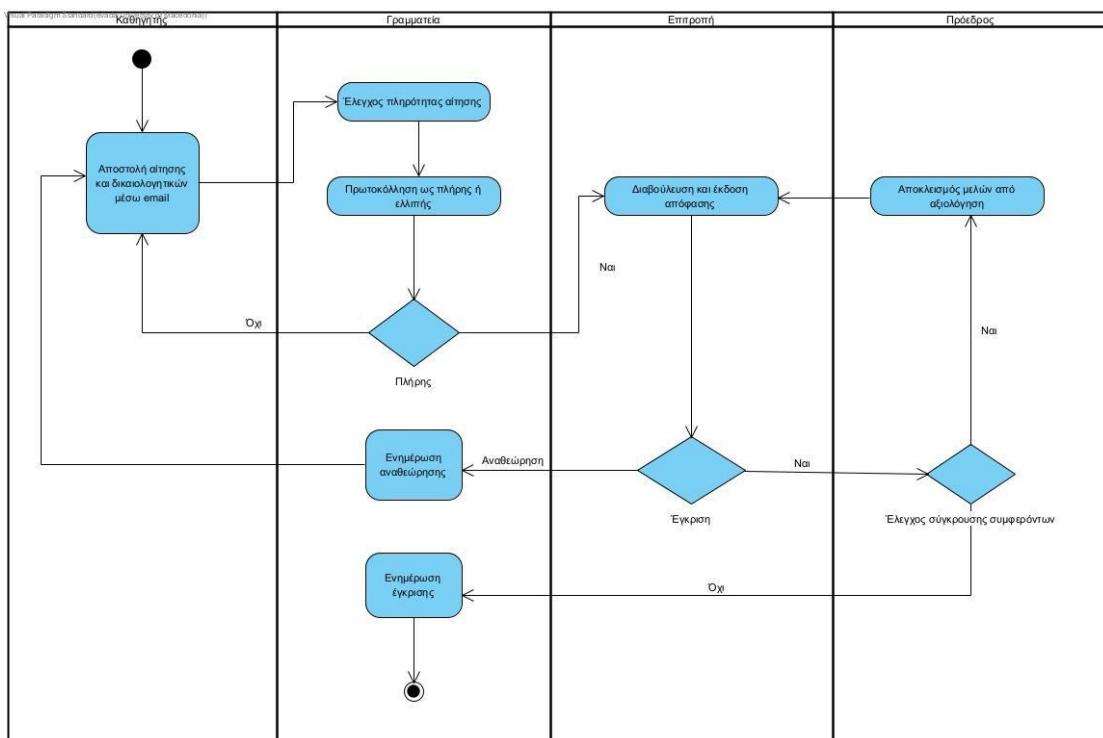
Description of the process of submission, evaluation and approval of applications by the PAMAK EHRC so far.

- Send application and supporting documents by e-mail.
- Checking the completeness of the application by the secretariat.
- Initial attachment as complete or incomplete.
- Consultation and adoption of a decision by the Committee.
 - Review:
 1. Notification of the applicant by the secretariat.

2. Re-sending of the application by the applicant.

- Approval:
 - 1. Conflict of interest check by the President.
 - a. YES Exclusion of members and re-adoption of the decision.
 - a. NO Signature of approval form.
 - Sending an approval form to the Secretariat by the President.
 - Notification of applicant for approval.

Chart AS- IS



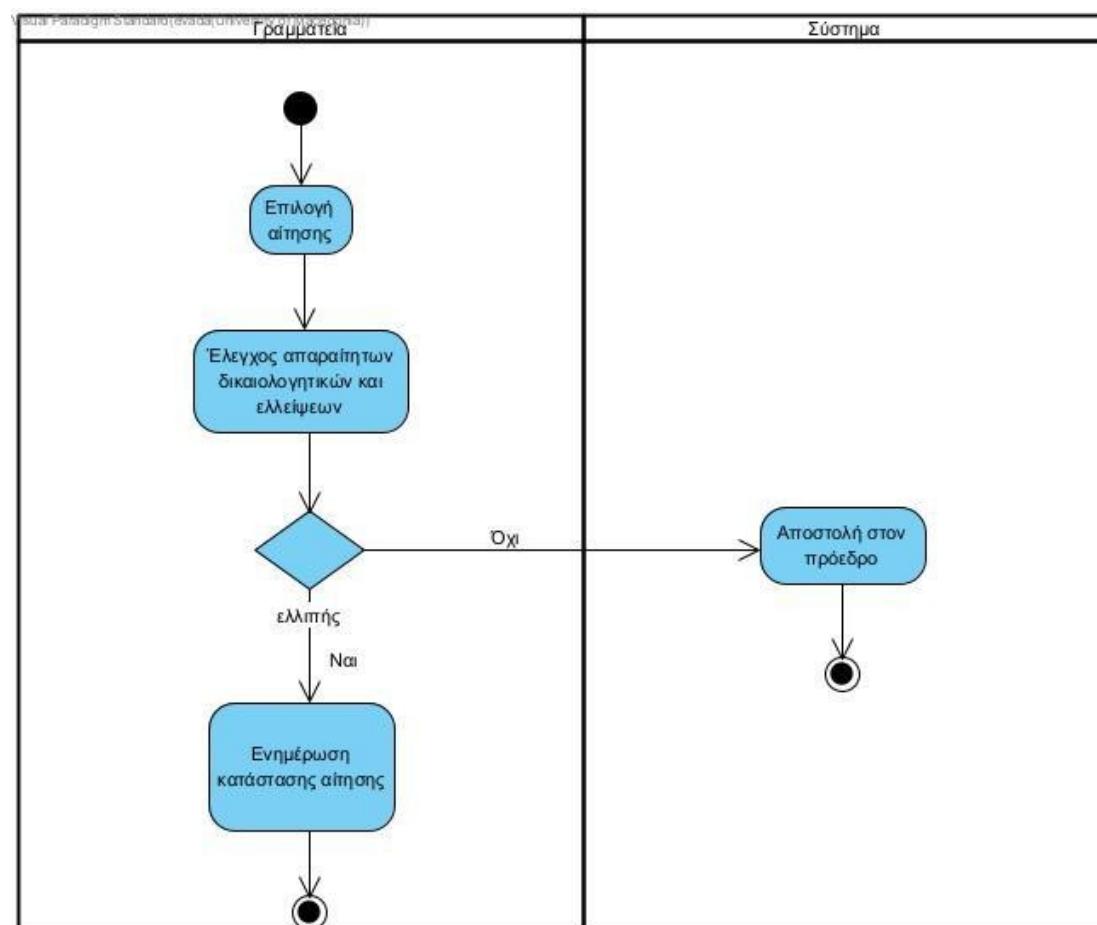
List of business processes TO- BE

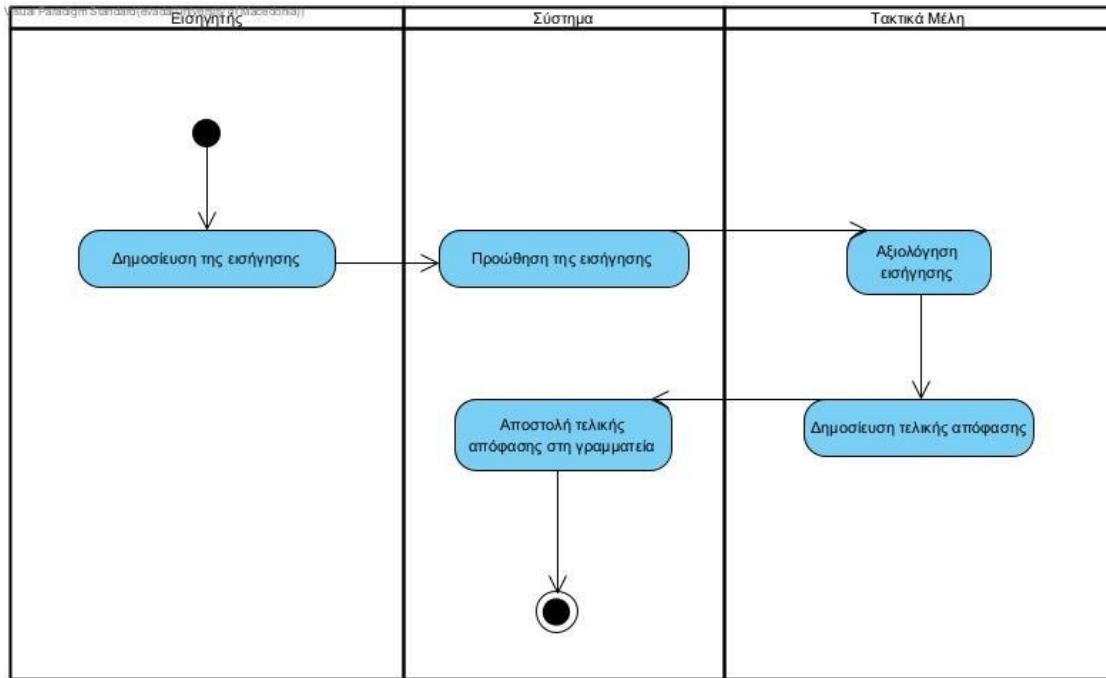
- Completion and submission of the application form with attached files (professor)
- Creating a folder with the application and attached documents (PA)
- Application verification email (EA)
- Sending a request to the President (MA)
- Electronic notification of the submission of the application to the secretariat and to the President (PC)

- Checking that the application form has been completed correctly (Secretariat)
- Initial registration as complete or incomplete (Secretariat)
- Sending an email with the application file number and a link to check the application to the teacher (PC)
- Conflict of interest check with the application and exclusion of members (President)
- Granting access to the electronic application file to the assessors (President)
- Assignment of a recommendation to a member of the Committee (Chairman)
- Electronic message informing the members of the Committee and the Rapporteur of the access to the file and their deadline (MA)
- Sharing of the proposal with the evaluators (Rapporteur)
- Evaluation of the application (Committee Members)
- Updating the status check page of the application together with the upload of the decision file (Secretariat)

Chart TO-BE

Indicatively some business processes modelled:





Analysis of INFORMATION Collection Methods

For the redesign of an information system, the collection of information and requirements is a prerequisite. That is, interaction with the user and the system operator is required for an insider's better understanding of the changes and upgrades that need to occur. For our information system, we propose that requirements gathering be carried out through interviews and questionnaires, so that people feel included and their opinion has an important role in the development of the new information system, but also through observation and document analysis to allow for a more thorough review by on the part of analysts.

OPERATIONAL REQUIREMENTS

- The system should provide the user with appropriate viewing software for reading documents from the document repository.
- The ordinary user must be able to make a request to the users/members of the committee.
- Users/members of the committee should be able to check and forward applications.
- Each request should be assigned a unique identifier (request ID), which the user will be able to copy to the account's persistent storage.
- The system should be able to store files to be printed (e.g. PDF).
- The system will be able to store user data for easy access in the future.

- The system should inform the user at any time about the progress of his/her application through indications (e.g. 'accepted', 'rejected'), which can be modified by the users/members of the committee.

Non-Operational REQUIREMENTS

The information system we create should meet the following requirements:

- Operational - Operational
 1. The system to be accessible via web from all browsers (e.g. Google chrome, Safari, Opera, Mozilla firefox).
 2. Operate properly without hindrance throughout the time that applications remain open.
- Performance - Performance
 1. After each application, the applicant should receive an immediate confirmation message and a copy of the application (within 5 minutes).
 2. Every 15 minutes to refresh the data, so that the database is updated and the system is not overloaded.
 3. The system should be available for the duration of the application period.
- Security - Security
 1. The system must be accessible to the members of the secretariat and the chairman of the EHRC.
 2. Applicants will be able to access any request they have made through the confirmation message they receive (Performance Requirement 1).
- Cultural & Politics - Cultural & Political
 1. The system accepts updated and validated forms from the KEPs or from the Gov.gr site.

User Stories

As a teacher I want to:

1. I would like to receive a confirmation email for the submission of my application so that I know that the submission was successful.
2. I want to be able to cache my application, so that I can submit it at a future time.
3. I want to be able to export my application in pdf format, so that I have a copy of it in my files.
4. I want to be regularly informed about the status of my application so that I can estimate the time it will take to complete the evaluation.

As a secretariat I want to:

1. I have been given the password for the email ethics@uom.edu.gr so that I can enter the platform with ease having the special privileges.
2. receive notification of the submission of the application, so that I can check its accuracy and completeness and register it.
3. I am informed of the committee's decision, so that I can update the status of the application and communicate the final decision.

As president I want to:

1. I have a special account on the platform, so I can easily log in and take the appropriate actions.
2. receive a notification of the submission of the application, so that I can check that it is complete.
3. I know whether the application is correctly completed and complete, so that I can carry out a conflict of interest check, exclude conflicting members and grant access to the file to the others.
4. assign the recommendation to a full member and inform the others of its assessment, in order to save time.

As a full member I want to:

1. I have my own special account so that I can access the special assessment platform.
2. be able to access the application file so that I can properly assess the application.
3. I receive the email with the assignment of rights on file and the deadline in time, so that I know how much time I have to evaluate the application.

As rapporteur I want to:

1. I have my own special account so that I can access the special assessment platform.
2. I receive the email assignment of rights in the application file and the deadline in time, so that I can draft the recommendation and execute its distribution in time.

Epics

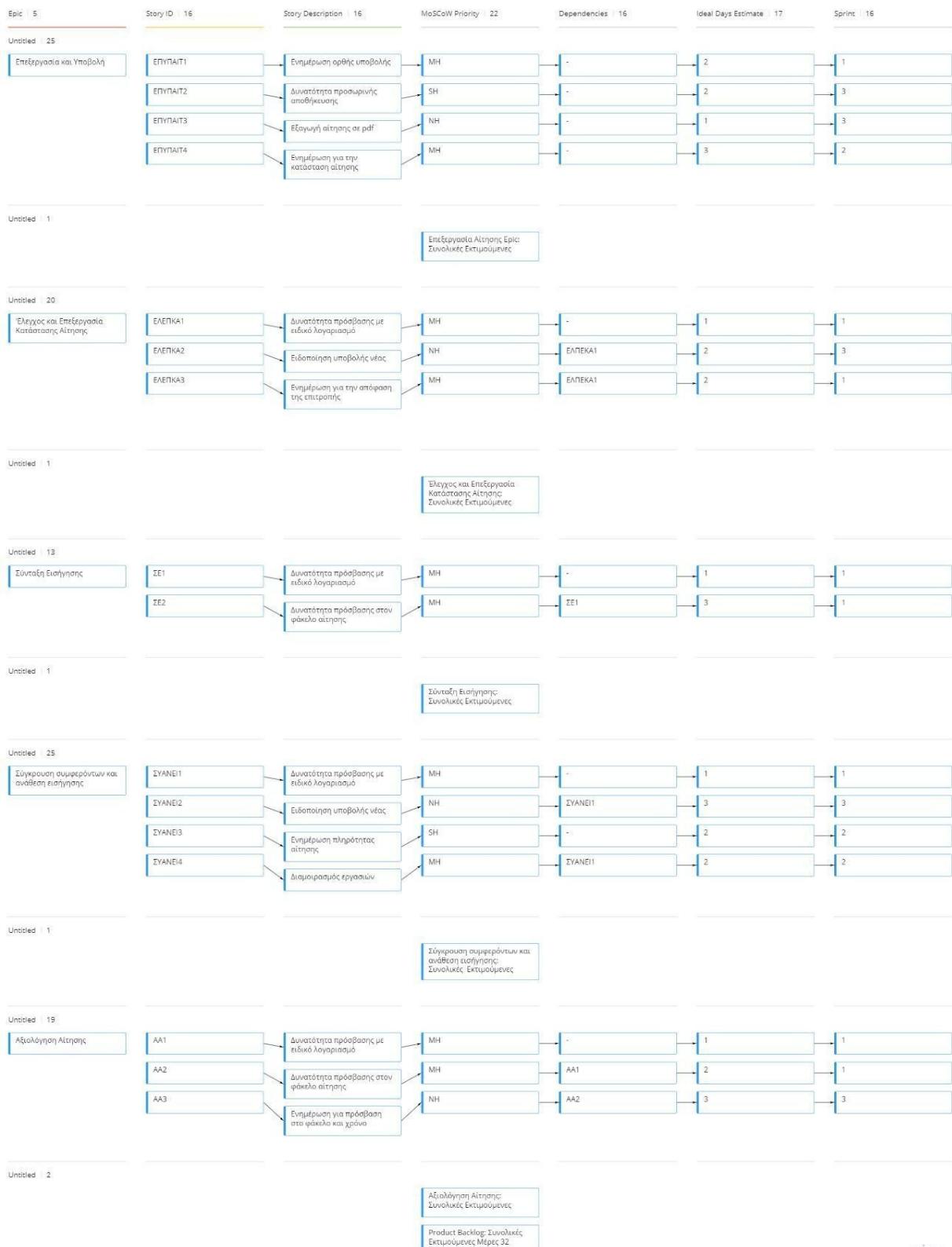
Professor: As a professor, I want to be able to cache and export the application in pdf format and be informed of both the correct submission of the application and its status, so that the process is easier and more efficient and the waste of effort and time is reduced.

Secretariat: As a secretariat, I want to have a dedicated account on the platform, to be informed about the submission of the application and to have access to the file, so that I can check its completeness, update its status and announce the decision of the committee.

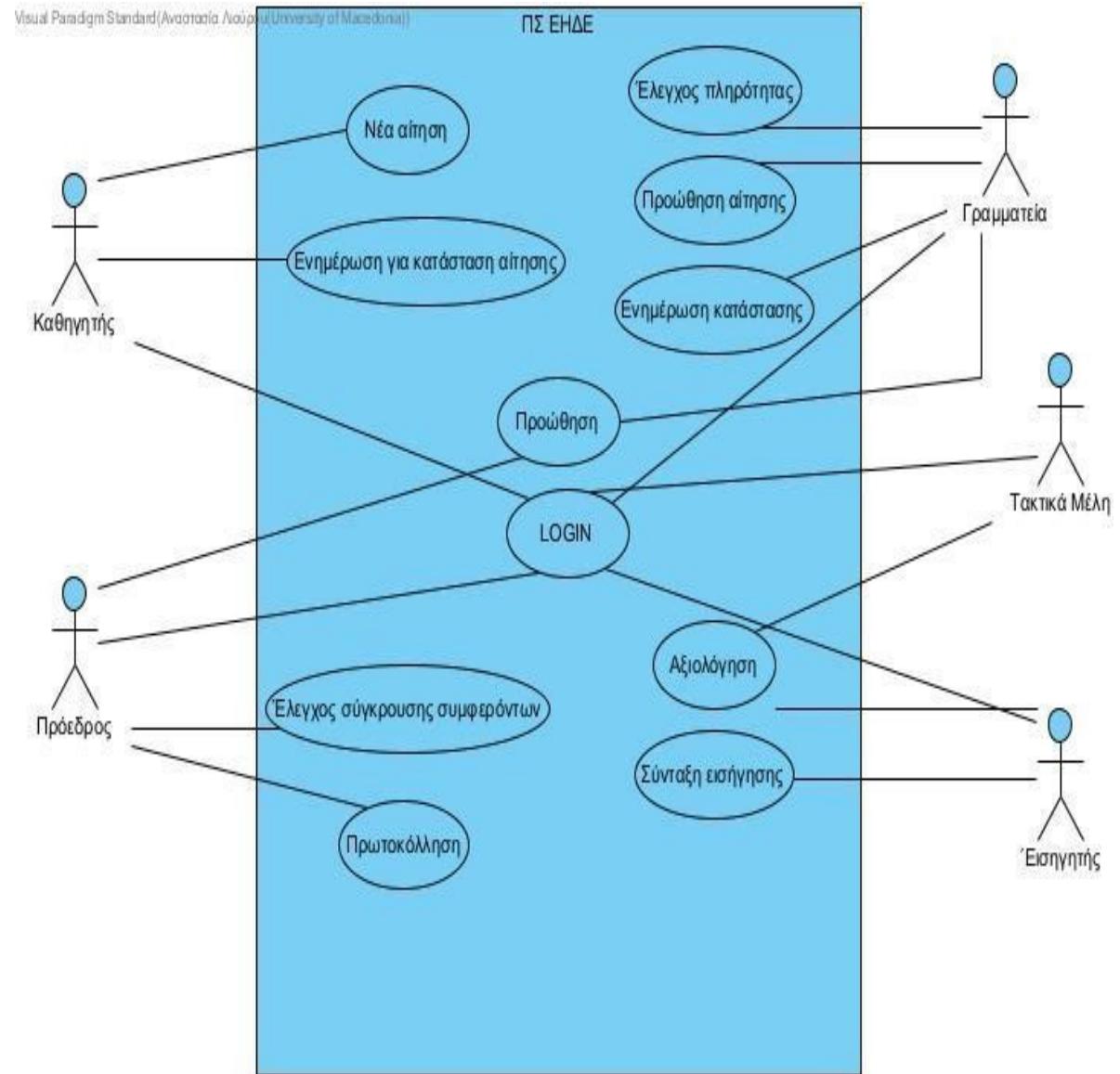
Chairman: As chairman, I want to have a special account on the platform and be informed immediately about the status of the application, so that I can carry out a conflict of interest check and delegate the drafting of the recommendation to a member.

Regular Member: As a regular member, I want to log in to the platform with a special account, to be given access to the application file and the recommendation, to receive immediate notification by email of this access and the deadline, so that I can carry out the evaluation in time.

Presenter: As a rapporteur, I want to have a special account on the platform and receive timely notification that I have been granted access to the file, so that I can draft the recommendation and share it with the committee members.



Use case diagram



VERBAL Descriptions ABOUT use cases

Use case "Login"

Basic Flow:

1. The user selects the "Login as teacher / Login as teacher" button State". (Screen 1)
2. The system displays the "Login" page.(Screen 2)
3. The user enters his/her username in the (username) field.
4. The user enters his password in the field (password).
5. The user selects the "LOGIN" button.
6. The system displays the "User Home Page".

Alternate Flow:

- 5.a.1 The username is not valid.
- 5.a.2 The system displays an error message. (Screen 3)
- 5.a.3 The use case continues from step 3.
- 5.b.1 The password is not valid.
- 5.b.2 The system displays an error message. (Screen 3)
- 5.b.3 The use case continues from step 3.

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)

Η Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε.) του Πανεπιστημίου Μακεδονίας αποτελεί το θεσμό εκείνο, ο οποίος διασφαλίζει ότι η ερευνητική δραστηριότητα, η οποία διεξάγεται στο πλαίσιο του Ιδρύματος, διέπεται από τις ισχύουσες αρχές της ακεραιότητας και ηθικής της έρευνας που εγγυώνται την ανεξαρτησία και αξιοπιστία της επιστημονικής γνώσης.

Είσοδος ως καθηγητής

Είσοδος ως μέλος

 ethics@uom.edu.gr

Screen 1

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Όνομα χρήστη (username)

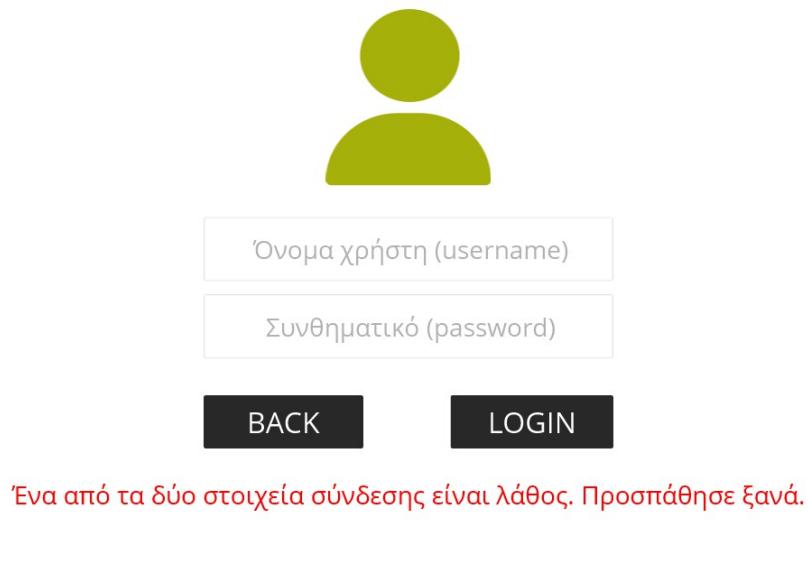
Συνθηματικό (password)

BACK

LOGIN

 ethics@uom.edu.gr

Screen 2



✉️ ethics@uom.edu.gr

Screen 3

Use case "New Application"

Basic Flow:

Preceded by the use case "Login".

1. The user selects the "New Request" button (Screen 4).
2. The system displays the New Application page (Screen 5).
3. The user selects the "Fill in Form" button.
4. The system displays the form to be filled in.
5. The user completes and submits the form.
6. The system displays the New Application page.
7. The user selects the "Upload files" button.
8. The system displays the user's personal folder on the computer.
9. The user selects the files they want.
10. The system displays the New Application page.
11. The user selects the "Final Submission" button.
12. A successful submission message is displayed. (Screen 6)

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Νέα Αίτηση

Κατάσταση Αίτησης

Screen 4

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Συμπλήρωση Φόρμας



Επισύναψη αρχείων

Αντιγραφή Αίτησης

Προσωρινή
Αποθήκευση

Εξαγωγή σε PDF

Οριστική Υποβολή

Screen 5



Νέα Αίτηση

Κατάσταση Αίτησης

Η αίτηση σας υποβλήθηκε επιτυχώς!

Protocol No. 12345

Screen 6

Use case "Initial attachment of request"

Basic flow:

1. It has been preceded by a Log-in from the president.
2. The chairman from his home page (Screen 7) selects a request.
3. Check the request for conflict of interest (See use case "conflict of interest check").
4. The President shall press the "Back" button (Screen 8).
5. The President shall press the 'Initial attachment' button.

Alternative flow:

- 2.a.1. If no application is selected an error message is displayed on the screen.
- 2.a.2. The chairman shall select one application.
- 2.a.3 Execution of step 3 of the basic flow.
 - 3.a.1. In case of conflict of interest see alternative use case flow 'conflict of interest check'.

Use case "Conflict of interest check "

Basic flow:

1. It has been preceded by a Log-in from the president.
2. The chairman from his home page (Screen 7) clicks on the "conflict of interest check" button.
3. It is checked whether any of the members of the evaluation committee are involved in the application in question.
4. There is no conflict of interest.
5. Granting applicants access to their electronic application file.

Alternative flow:

- 4.a.1. A conflict of interest is identified.
- 4.a.2. The chairman selects the member from the list (screen 8).
- 4.a.3. Press the exclude button.
- 4.a.4. The chairman shall appoint another member.
- 4.a.5. Perform step 3 of the basic flow.

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)

Αίτησεις προς
πρωτοκόλληση:



Αίτηση 1
Αίτηση 2
Αίτηση 3
Αίτηση 4
Αίτηση 5

Έλεγχος
σύγκρουσης
συμφερόντων

Πρωτοκόλληση

Προώθηση

Screen 7

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Μέλη

Μέλος 1	<input type="checkbox"/>
Μέλος 2	<input type="checkbox"/>
Μέλος 3	<input checked="" type="checkbox"/>
Μέλος 4	<input type="checkbox"/>

Αποκλεισμός Μέλους

BACK

Screen 8

Use case "Check completeness":

Normal Flow:

1. The secretariat is linked to its special account.
2. The system takes her to her home screen. (Screen 9)
3. Selects the pending application he wants to evaluate.
4. He presses the "completeness check" button.
5. You are taken to the page where the application is located.
6. It checks that the application is correctly completed and that the necessary documents have been submitted.
7. He presses the back button.
8. You are taken to its home page.

Alternative Flow:

- 5.a.1 The system displays an error message "no request selected". (Screen 10)

5.a.2 The use case continues from step 3.

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)

'USERNAME'

Εκκρεμείς Αιτήσεις:

- Αίτηση 1
- Αίτηση 2
- Αίτηση 3**
- Αίτηση 4
- Αίτηση 5

Αξιολογημένες:

- Αίτηση 1 ○○○
- Αίτηση 2 ○○○
- Αίτηση 3 ✘
- Αίτηση 4 ✓**
- Αίτηση 5 ✓

Έλεγχος πληρότητας Προώθηση

Ενημέρωση κατάστασης

Screen 9

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)

'USERNAME'

Εκκρεμείς Αιτήσεις:

- Αίτηση 1
- Αίτηση 2
- Αίτηση 3**
- Αίτηση 4
- Αίτηση 5

Έλεγχος πληρότητας Ενημέρωση κατάστασης Προώθηση

Δεν έχει επιλεγεί κάποια αίτηση.

Screen 10

Use case "Forward Application":

Normal Flow:

1. The user logs in to the special account.
2. Selects the application he wants to promote. (Screen 11)
3. He presses the forward button.
4. It is transferred from the system to the page with all members.
5. Selects the members to whom he/she wants to forward the request.
6. He presses the forward button.
7. Presses the back button.
8. Goes to the home screen.

Alternative Flow:

- 3.a.1 The system gives an error message "You have not selected a request".
- 3.a.2 The use case continues from step 2.
- 6.a.1 The system displays an error message "You have not selected members".
- 6.a.2 The use case continues from step 5.

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)

Αίτησεις προς
πρωτοκόλληση:



Αίτηση 1
Αίτηση 2
Αίτηση 3
Αίτηση 4
Αίτηση 5

Έλεγχος
σύγκρουσης
συμφερόντων

Πρωτοκόλληση

Προώθηση

Screen 11



Μέλη

- | | |
|---------|-------------------------------------|
| Μέλος 1 | <input type="checkbox"/> |
| Μέλος 2 | <input type="checkbox"/> |
| Μέλος 3 | <input checked="" type="checkbox"/> |
| Μέλος 4 | <input type="checkbox"/> |

Ορισμός Εισηγητή

BACK

Screen 12

Use case of "ΑΞΙΟ scholarship":

Normal Flow:

1. Calling the MS "Authentication Action" .(screen 13)
2. The system displays the evaluation page to the regular member. (screen 13)
3. The regular member selects the evaluation framework and evaluates. (screen 13)
4. The regular member clicks the submit button. (screen 13)

Protocol number αίτησης:

###



Εισήγηση:

...

Αξιολόγηση:

Γράψε εδώ την αξιολόγηση σου.
(Αποδέχομαι / Δεν αποδέχομαι)

Υποβολή

Screen 13

Use case "Drafting of the DRAFTING OF THE label":

Normal Flow:

1. It's called the MDG "Authentication Action". (screen 14)
2. The system displays the presentation/evaluation page to the presenter. (screen 14)
3. The rapporteur selects the context of the introduction and submits his/her introduction. (screen 14)
4. The facilitator selects the context of the evaluation and evaluates. (screen 14)
5. The rapporteur presses the submit button. (screen 14)

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)

Protocol number αίτησης:

###



Εισήγηση:

Γράψε εδώ την εισήγηση σου.

Αξιολόγηση:

Γράψε εδώ την αξιολόγηση σου.
(Αποδέχομαι / Δεν αποδέχομαι)

Υποβολή

Screen 14

Use case "Update on request status":

Basic flow:

1. The "Login" step is preceded by the teacher.
2. On its home screen, it selects the "Application Status" button. (Screen 15)
3. He checks the status of his application. (Screen 16)
4. When the application is at the "Approved/Unapproved" stage the user will be able to click on the "Decision PDF" button to see the final decision for his application.

Alternative flow:

- 2.a.1. If no application has been submitted, the screen displays an error message "You have not submitted an application"
- 2.a.2. The user executes the "New request" BC
- 2.a.3. The use case continues from Step 2

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Νέα Αίτηση

Κατάσταση Αίτησης

Η αίτηση σας υποβλήθηκε επιτυχώς!

Protocol No. 12345

Screen 15

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Κατάσταση Αίτησης:

Ελλειπής - Αναγκαιότητα Νέας
Υποβολής

Υπό Αξιολόγηση

Προς έγκριση

Εγκεκριμένη/Μη εγκεκριμένη

Παρατηρήσεις:

...

↓ PDF ΑΠΟΦΑΣΗΣ

Screen 16

Use case "Update application status" :

Normal Flow:

1. The user enters the platform.
2. Selects the pending request.
3. Presses the status update button. (Screen 17)
4. Takes you to the status update page. (Screen 18)
5. Updates the status of the application.
6. He presses the back button.
7. You are taken to the home page.

Alternative Flow:

- 3.a.1 The system displays an error message "You have not selected a request" (Screen 19)
 - 3.a.2. The use case continues from step 2
 - 5.a.1 If the application is incomplete, select the corresponding status.
 - 5.a.2 Uploads the relevant observations in the corresponding field.
 - 5.a.3 Presses the update data button.
 - 5.a.4 The use case continues from step 6.
- 5.b.1 If the application is under review or for approval, select the corresponding situation
 - 5.b.2 Press the Update Data button.
 - 5.b.2 The use case continues from step 6.
- 5.c.1 If the application is approved/Unapproved select the corresponding status
 - 5.c.2 Press the Update Data button.
 - 5.c.3 Presses the PDF decision button.
 - 5.c.4 Opens the window in which the file will be uploaded.
 - 5.c.5 Drag the file into the window.
 - 5.c.6 Press the upload button.
 - 5.c.7 Scrolls back to the application status page.
 - 5.c.8 The use case continues from step 6.



'USERNAME'

Εκκρεμείς Αιτήσεις:

- Αίτηση 1
- Αίτηση 2
- Αίτηση 3**
- Αίτηση 4
- Αίτηση 5

Έλεγχος
πληρότητας

Ενημέρωση
κατάστασης

Προώθηση

Screen 17



'USERNAME'

Κατάσταση Αίτησης:

Ελλειπής - Αναγκαιότητα Νέας
Υποβολής

Υπό Αξιολόγηση

Προς έγκριση

Εγκεκριμένη/Μη εγκεκριμένη

Παρατηρήσεις:

....

Ενημέρωση στοιχείων

↑ PDF ΑΠΟΦΑΣΗΣ

BACK

Screen 18

Επιτροπή Ηθικής και Δεοντολογίας της Έρευνας (Ε.Η.Δ.Ε)



Εκκρεμείς Αιτήσεις:

Αίτηση 1
Αίτηση 2
Αίτηση 3
Αίτηση 4
Αίτηση 5

Έλεγχος
πληρότητας

Ενημέρωση
κατάστασης

Προώθηση

Δεν έχει επιλεγεί κάποια αίτηση.

Screen 19

Chart Classes

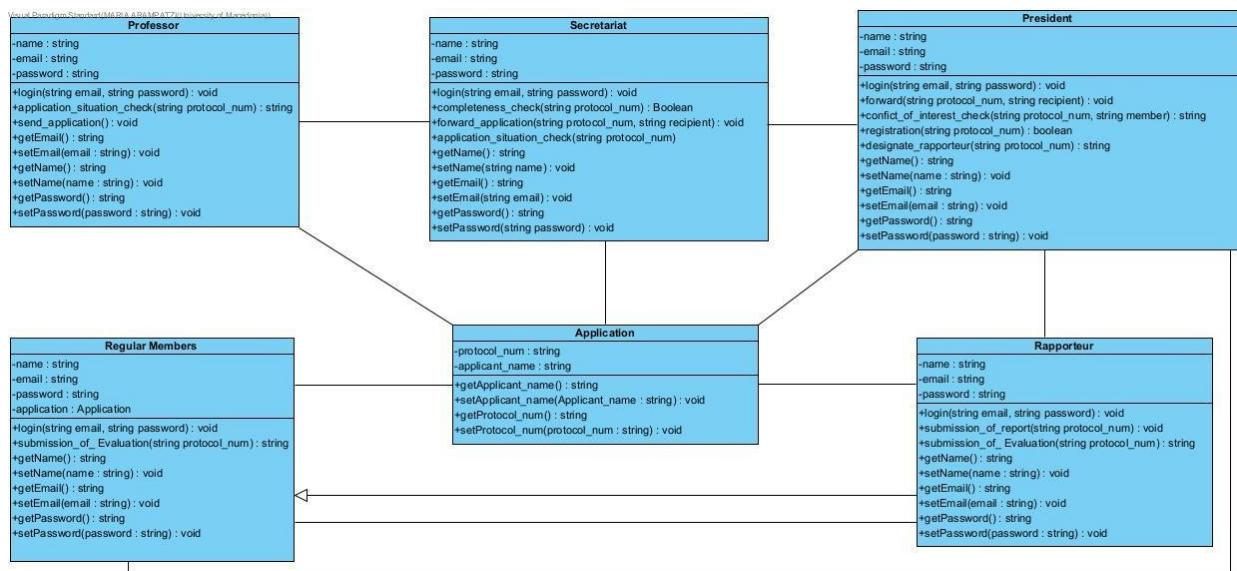
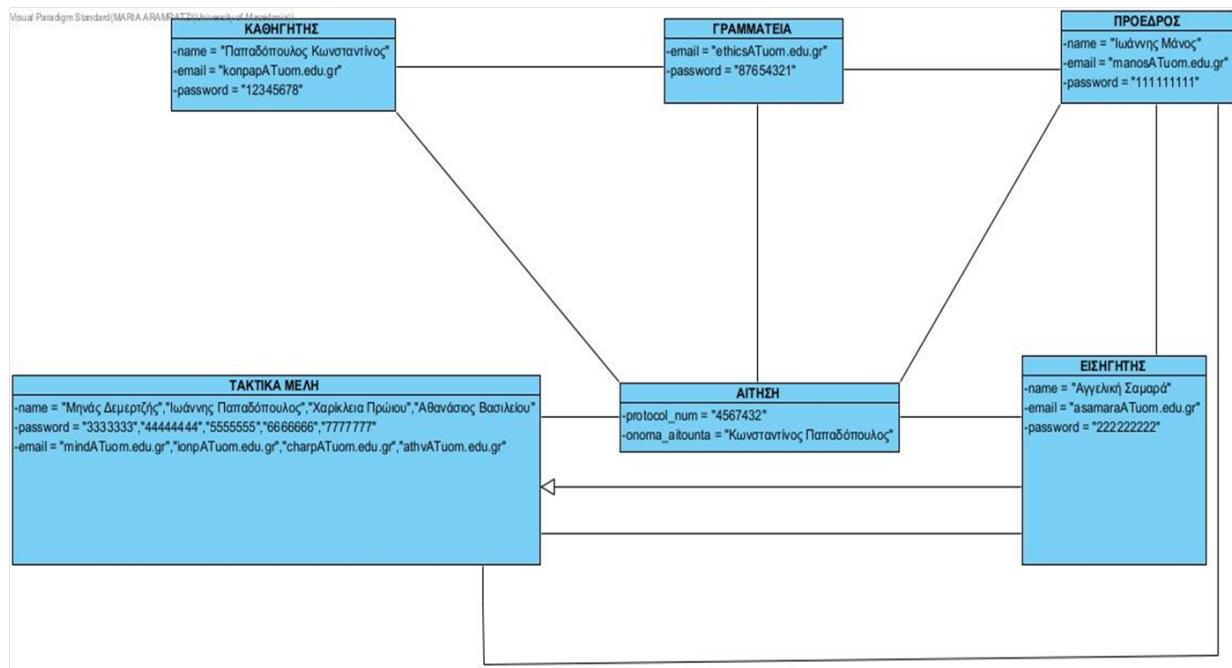


Chart of OBJECTS



PROPERTY Analysis

This information system is used by the professor concerned, the rapporteur, the full members of the EHRC, the secretariat and the chairman. Initially, the professor logs in with his/her EHRC account and uploads his/her application together with the necessary supporting documents. The secretariat then logs into their account and checks the completeness of the application. If the application is not complete the teacher is informed from the application status page and chooses whether to upload the application again with the proposed changes. If the application is complete it is sent to the chair who performs a conflict of interest check and disqualifies the necessary members. He then forwards the application to a full member who must draft and forward the recommendation to the other full members. They in turn are invited to assess the application and the final result is sent to

Secretariat. At the same time the teacher can be informed about the status of the application from the application status page until the secretariat uploads the final decision of the committee.

List of nouns

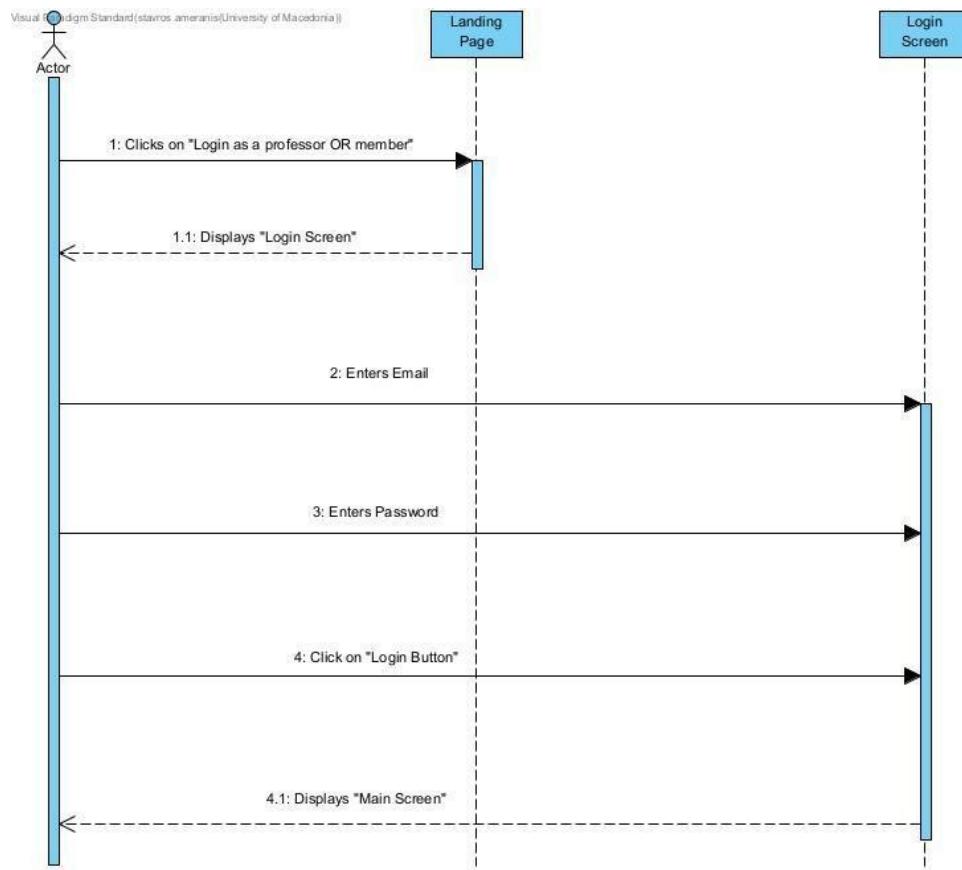
Information system	Retrieved from
Professor	Supporting documents
Lecturer	Application status page
end members	Conflict of interest control
EDC	Directions
Alliance	material result
President	Application status
account	final decision

Excluded from the candidate classes were the information system because we never refer to the system itself, the EHRC because we do not need an individual class as all its members are referred to in the candidate classes, the account, the proposal, the final result, the application status and the supporting documents as they will be considered the object of the individual classes, the application status page as in this paper we interact with the user through the console.

Candidate Classes
Professor
Alliance
Lecturer
President
end Members
Retrieved from

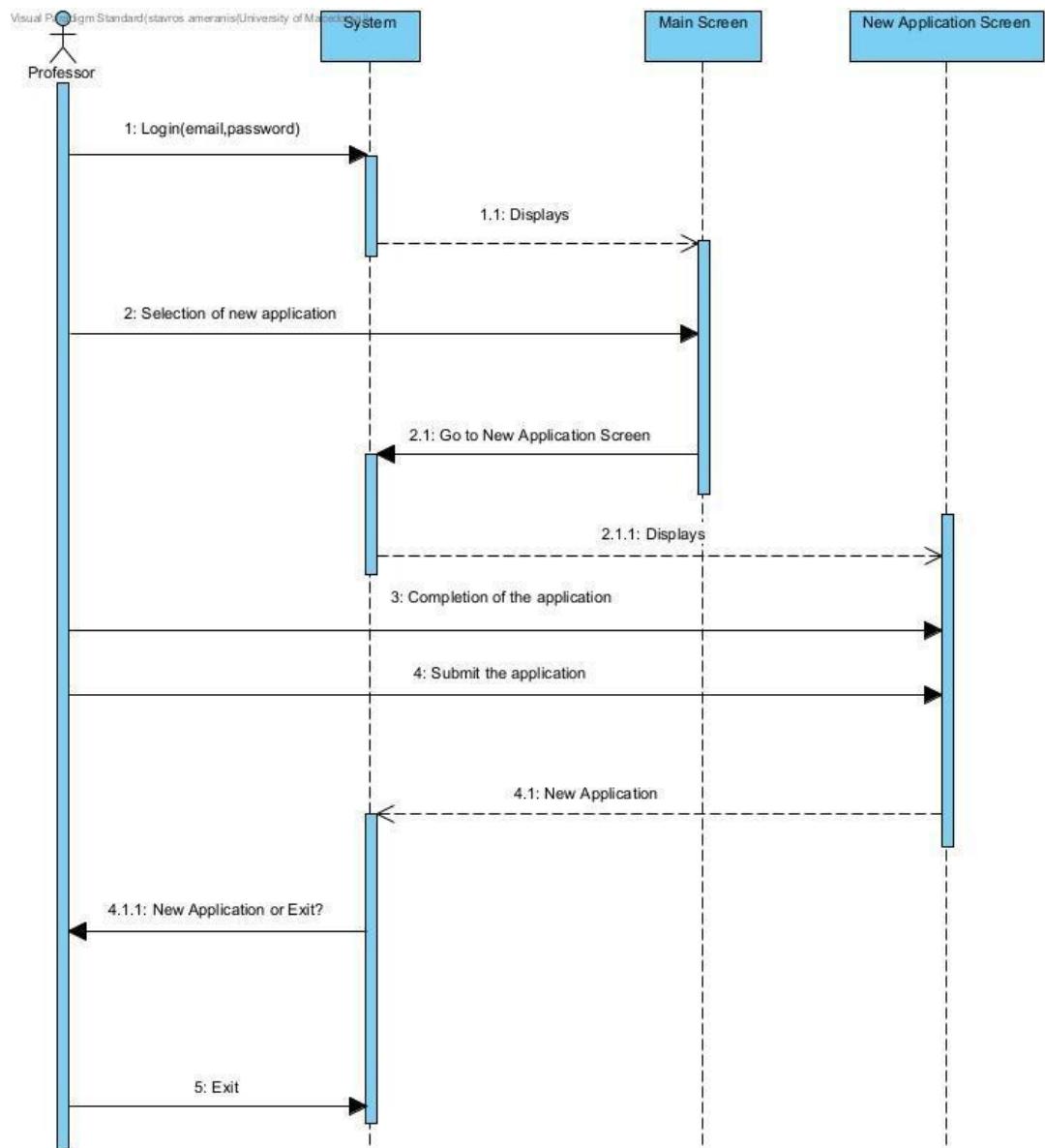
Charts Sequence diagrams

Login:



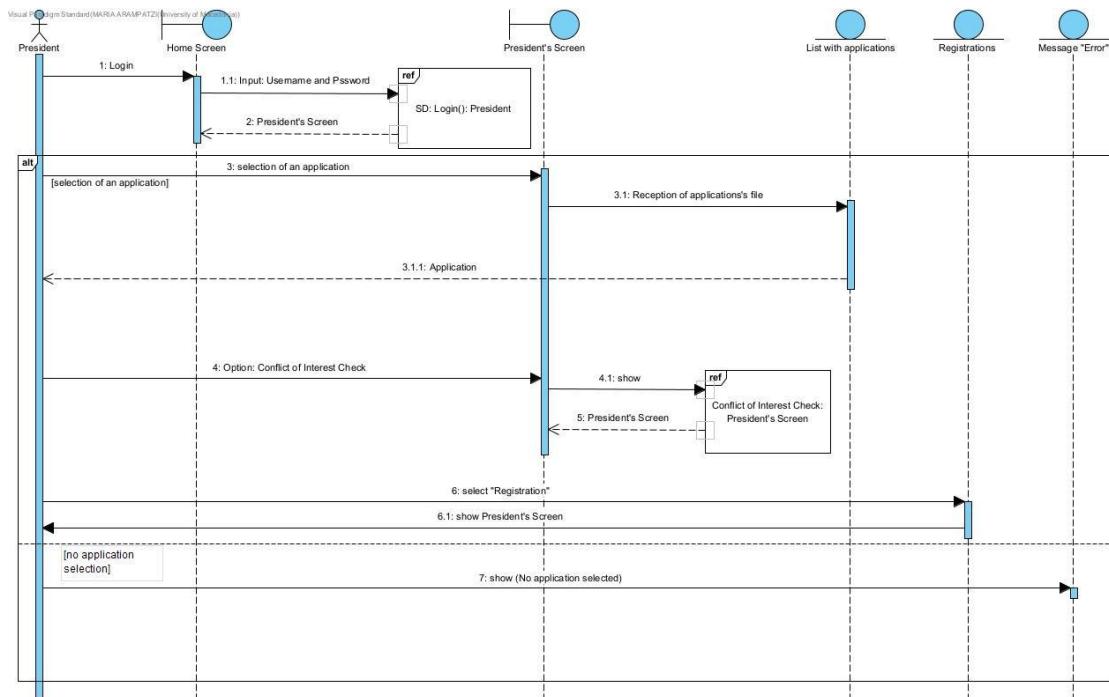
1. The user selects the "Login as a Professor" or "Login as a member" button depending on its status.
2. The system displays the Login Screen.
3. The user enters their email address.
4. The user enters their password.
5. The user selects the "Login" button.
6. The system takes him to the home screen, provided the input data are true.

New application:



1. The user logs in to the special account.
2. The system displays the home screen.
3. The user selects the <<New Request>> button.
4. The system displays the new request form.
5. The user completes the new application.
6. The user submits the new request.
7. **The system displays the message <<New request or Exit?>>.**
8. The user selects exit.

First filing of an application:



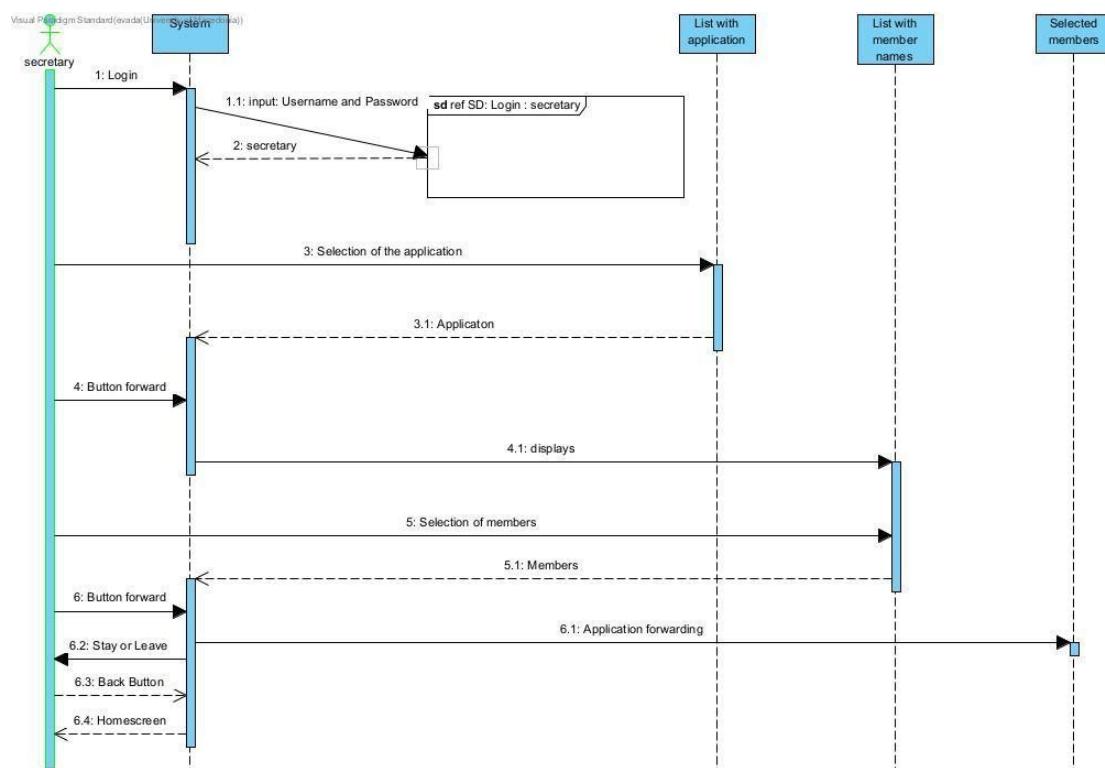
Basic flow:

1. **The President chooses to Login.**
2. The system calls the <<Login>> BC.
3. The system displays the President's Screen.
4. The chairman selects a request from his screen.
5. **The President's Screen asks for the application file from the Application List.**
6. **The application list receives from each application its file.**
7. **The President's Screen displays the request file to the President.**
8. The chairman checks the request for conflict of interest (see use case "conflict of interest check").
9. **The system displays the President Screen to the President.**
10. The President shall press the 'Initial attachment' button.
11. **The system displays the President Screen again.**

Alternate flow:

- 2.a.1. If no application is selected an error message is displayed on the screen.
- 2.a.2. The chairman shall select one application.
- 2.a.3 Perform step 4 of the basic flow.
- 3.a.1. In case of conflict of interest see alternative use case flow "conflict of interest check".

Forward Application:

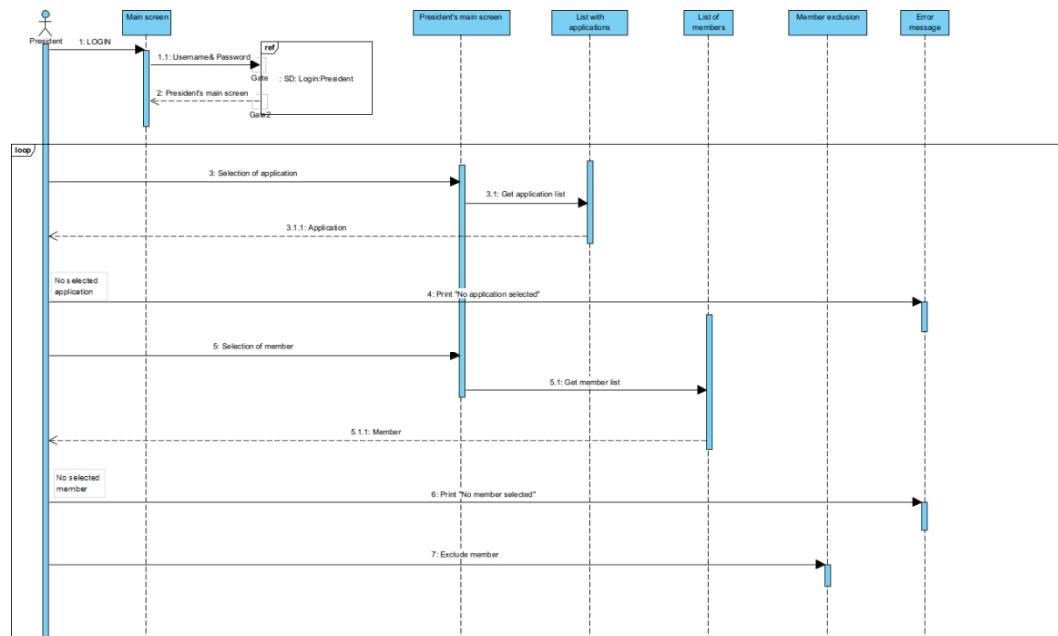


Normal Flow:

1. The user logs in to the special account.
2. The system scrolls through the list of emails and passwords, selects the appropriate account and displays the appropriate home screen.
3. The user selects the request he wants to forward from the list.
4. The selected request is returned to the system memory to can be taken forward on completion of the procedure.
5. He presses the forward button.
6. It is transferred from the system to the page with all members.
7. Selects the members to whom he/she wants to forward the request.
8. The selected members are returned to the system memory.
9. The user clicks the forward button.
10. The system forwards the selected application to the selected members.
11. The system displays the Stay on page or return to home window.
12. The user selects the back button. 13.is taken from the system to the home screen.

Conflict of interest check:

Basic flow:

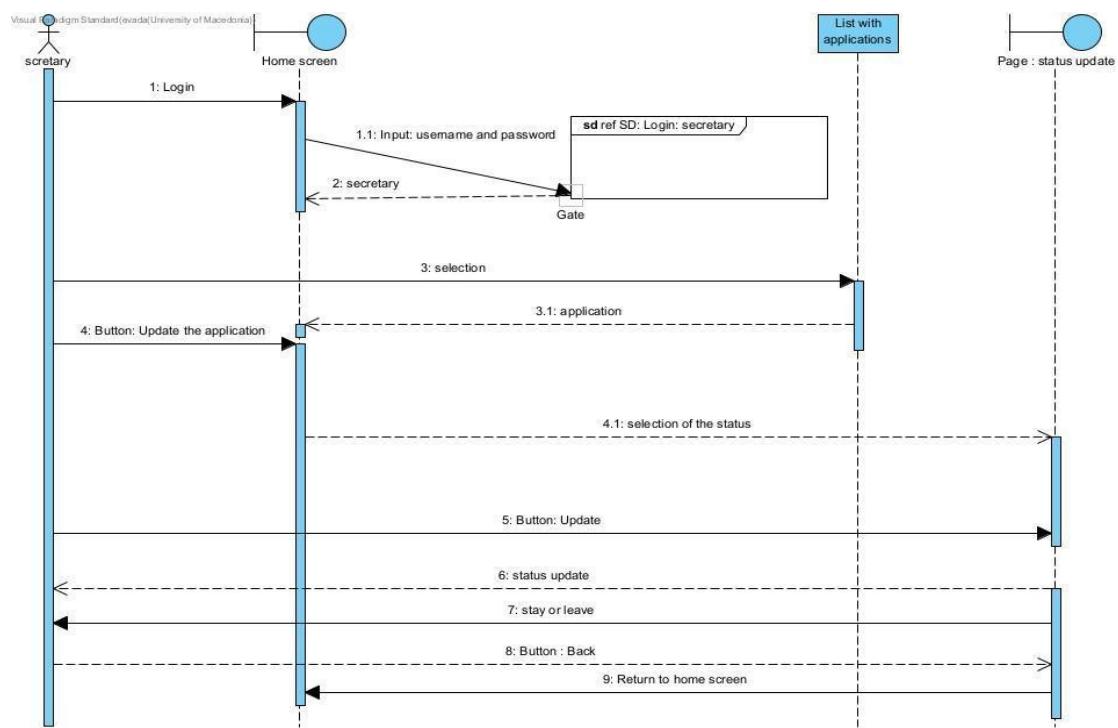


1. It has been preceded by a Log-in from the president.
2. The chairman from his home page (Screen 1) clicks on the "conflict of interest check" button.
3. It is checked whether any of the members of the evaluation committee are involved in the application in question.
4. There is no conflict of interest.
5. Granting applicants access to their electronic application file.

Alternative flow:

- 4.a.1. A conflict of interest is identified.
- 4.a.2. The chairman selects the member from the list (screen 2).
- 4.a.3. Press the exclude button.
- 4.a.4. The chairman shall appoint another member.
- 4.a.5. Perform step 3 of the basic flow.

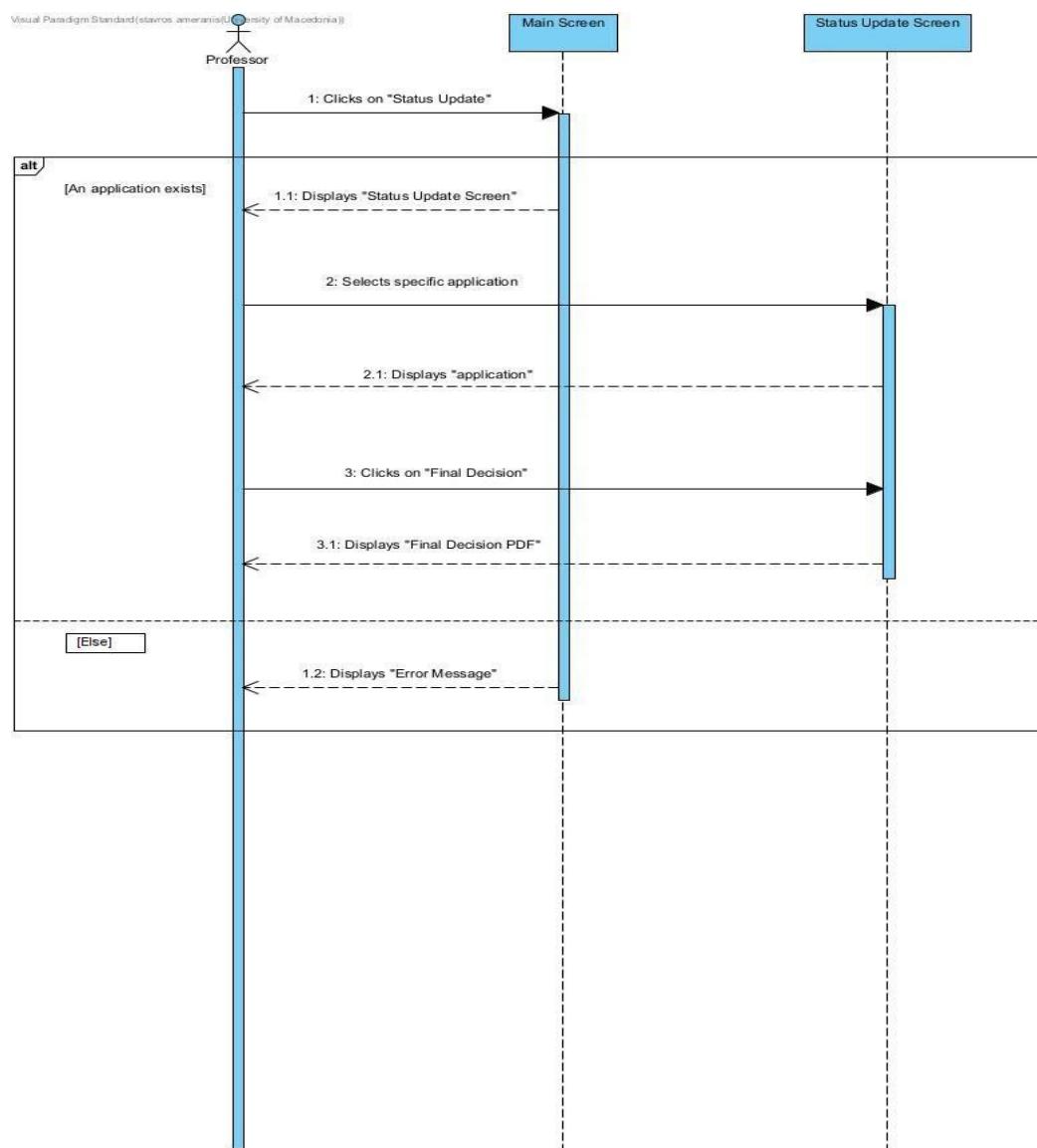
Updating the application status (Secretariat):



Normal Flow:

1. The user enters the platform.
2. The system scrolls through the list of emails and passwords, selects the appropriate account and displays the appropriate home screen.
3. The user selects from the list of requests the request he wants to update.
4. Presses the status update button.
5. It is transferred from the system to the status update page.
5. Selects the state the request is in.
6. Presses the update data button.
7. The system updates the status of the application.
8. The system displays the Stay on page or return to home window.
9. The user selects the back button. 10.The system takes the user to the home screen.

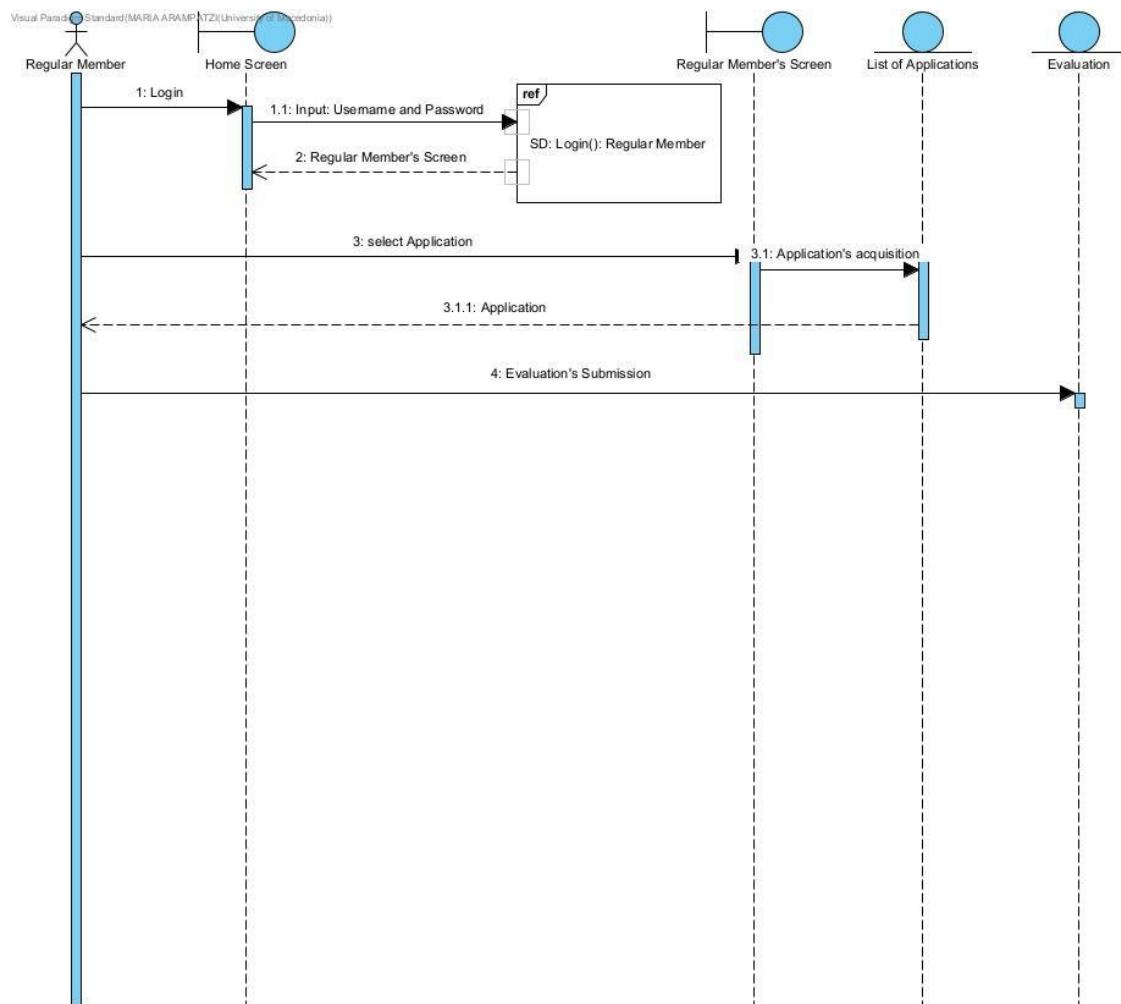
Information on application status (professor):



Normal Flow:

1. The user selects the "Status update" button on the home screen.
2. **a. If there is at least one application available, the system displays the list of available applications.**
3. **The user selects the request he wants.**
4. The system displays the application with its details.
5. **The user selects the "Final decision" button.**
6. The system displays the final decision document.

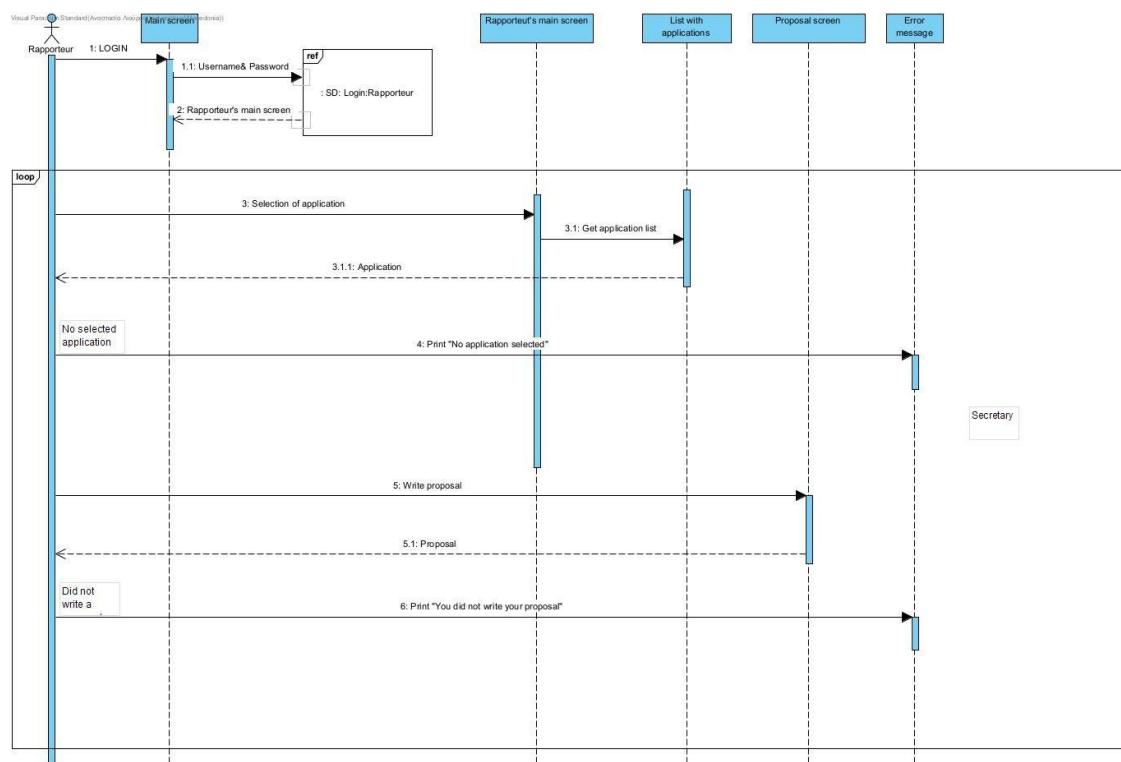
Evaluation:



Normal Flow:

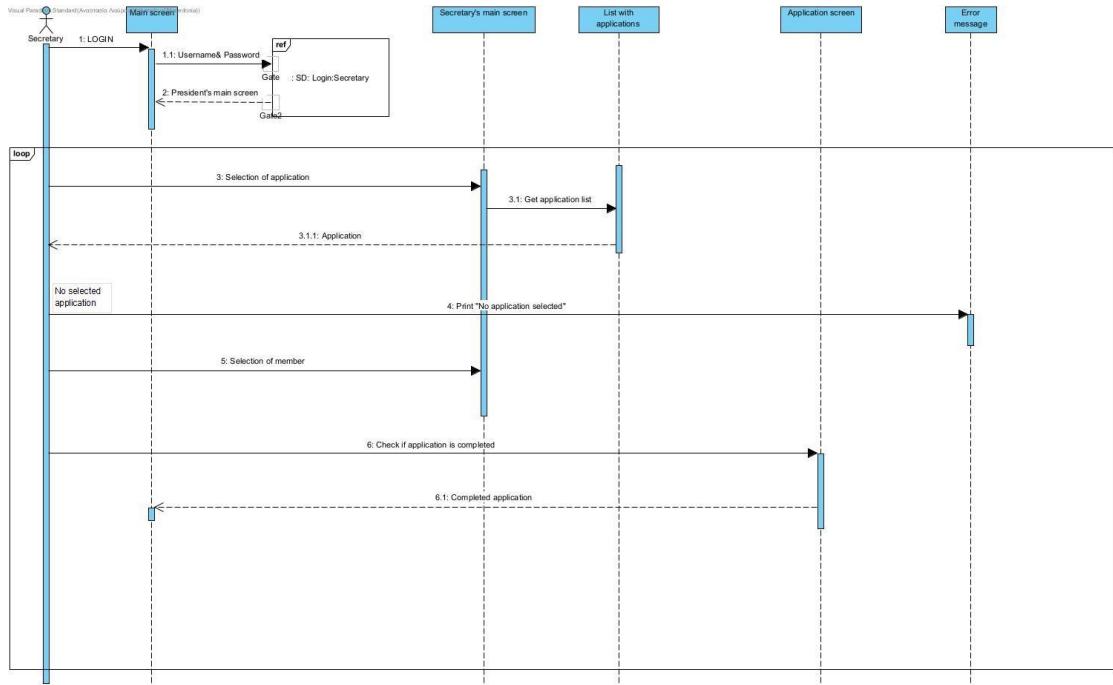
1. The Regular Member chooses to Login.
2. The system calls the <<Login>>
3. The system displays the evaluation page to the regular member.
4. The regular member selects an application for evaluation.
5. The Regular Member screen requests the application from the application list.
6. The Screen displays the request to the Regular Member.
7. The regular member selects the evaluation framework and evaluates.
8. The regular member clicks the submit button.

Drafting of a proposal:



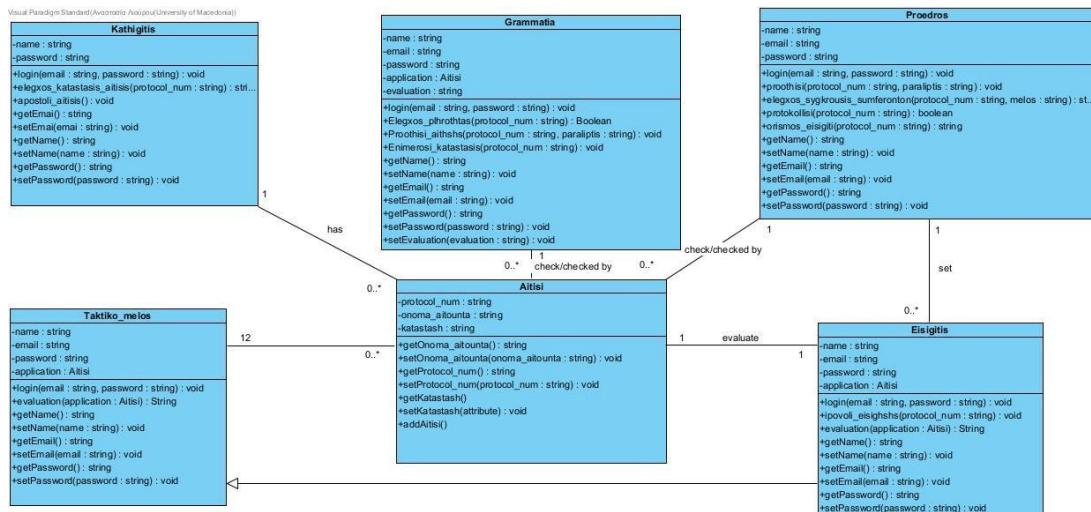
1. It's called the MDG "Authentication Action". (screen 14)
2. The system displays the presentation/evaluation page to the presenter. (screen 14)
3. The rapporteur selects the context of the contribution and submits his/her contribution. (screen 14)
4. The facilitator selects the context of the evaluation and evaluates. (screen 14)
5. The rapporteur presses the submit button. (screen 14)

Checking the completeness of the application:

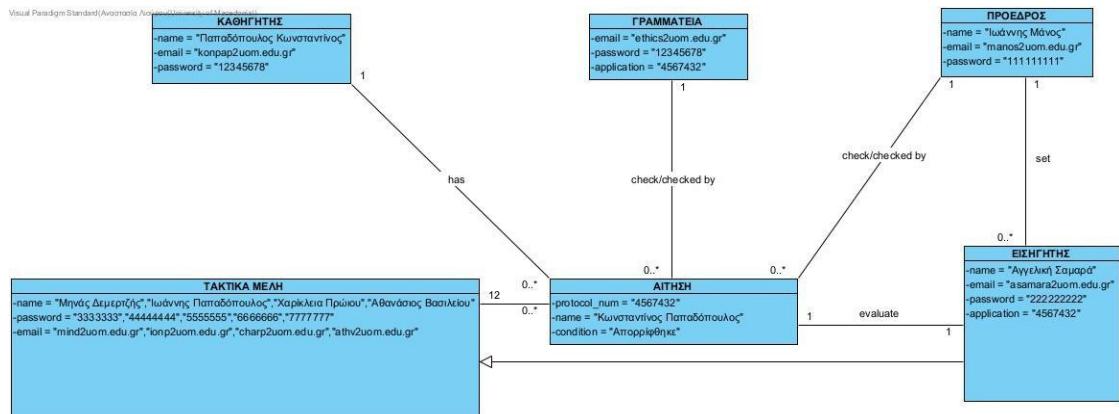
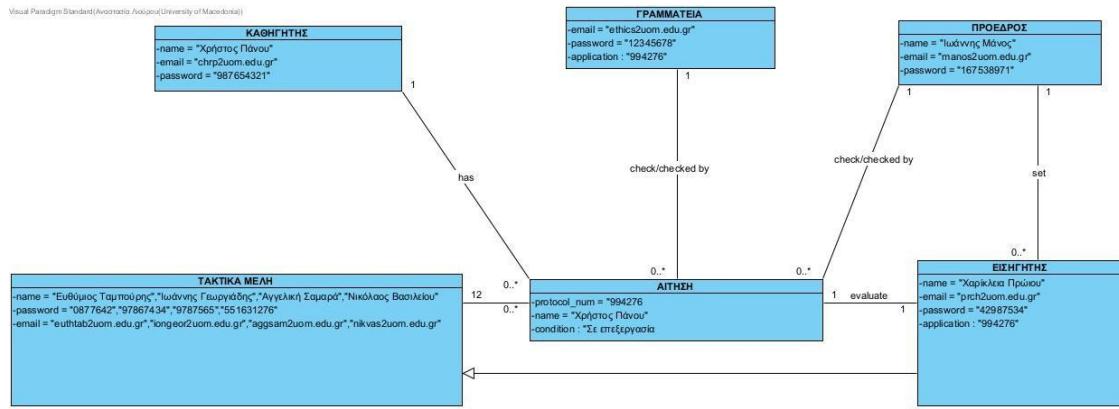


1. The secretariat is linked to its special account.
2. The system takes her to her home screen. (Screen 9)
3. **Selects the pending application he wants to evaluate.**
4. **He presses the "completeness check" button.**
5. You are taken to the page where the application is located.
6. **It checks that the application is correctly completed and that the necessary documents have been submitted.**
7. He presses the back button.
8. You are taken to its home page.

Final class diagram



Final diagrams of OBJECTS



Conclusions

The purpose of this paper is to develop an information system for the Committee on Ethics in Research. In order to create the most effective and efficient proposal we went through three stages. Preparation

: Our project is worthy and can be built. It has more benefits, low risk and few people will oppose its construction. Analysis : After collecting information in collaboration with the users and operators of the system, we came up with the Business Process Improvement method. We collected the necessary requirements and came up with the basic form of the system.

Design: the result of the design phase is final diagrams of classes and objects.

Implementation: The final result is the implementable code in object-oriented programming language. In conclusion, this proposal has successfully passed all the four stages and has yielded positive results encouraging its implementation and use by the EHRC.

Annex A: GROUP SELF-ASSESSMENT

Self-evaluation of work:

Work effort score (1-10):8.5

Degree of work on the final result (1-10):8

Final grade of your group work (1-10):8

Our team worked according to the instructions given from the beginning. We worked together to achieve the best possible result. We spent a lot of time understanding and working on each week's assignments.

All the deadlines that were set were met and we did many versions of the work to get the most out of it. We feel that the result is worthy of our efforts and is decent. We believe that these reasons justify the grade we expect.

Comparative contribution of each member to the final result:

Full name	Contribution (%)
Ameranis Stavros	20%
Arabatzi Maria	20%
Dandika Evangelia	20%
Kalaitzis Ioannis	20%
Liourou Anastasia	20%
Total	100%

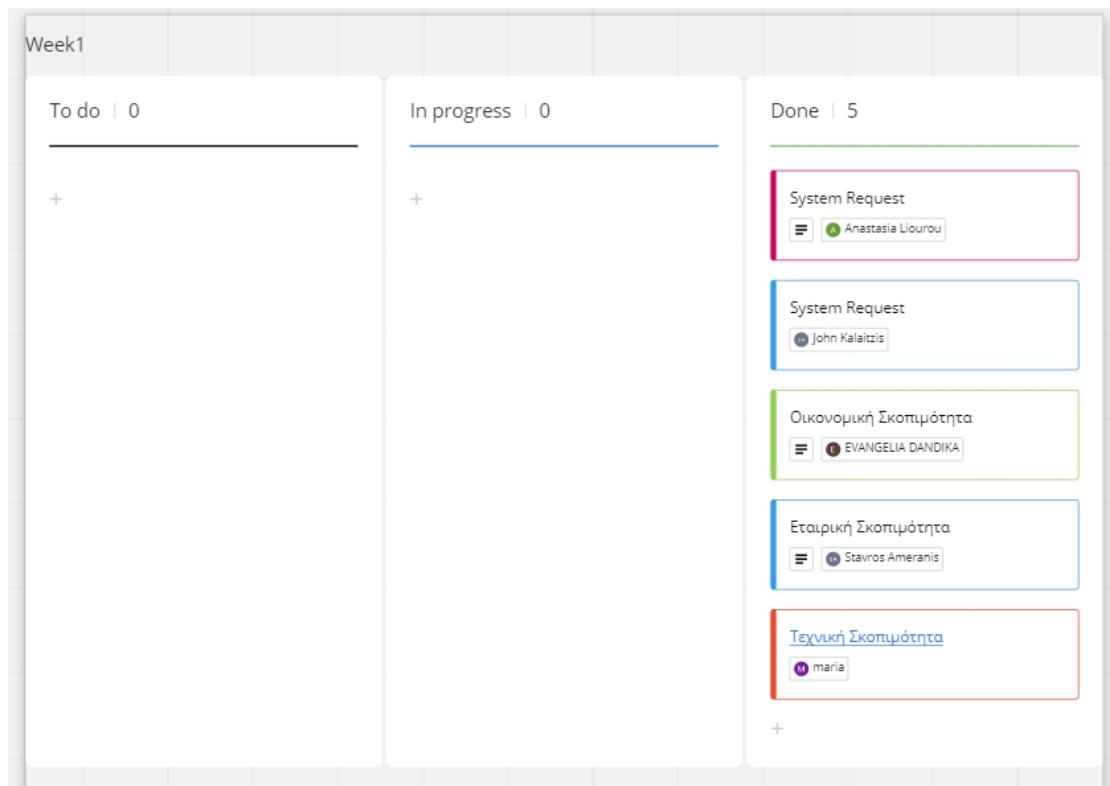
Annex B

After the creation of our team, a meeting was held to get to know each other and to define our way of working. We decided each week to divide the individual tasks and at the end of the week we organised meetings to check the final result, to ask any questions that might have arisen and to make the necessary corrections. Our meetings were mostly online (via the discord application), and in some cases when the situation demanded it and our daily commitments allowed it, they were held in person. Our team worked together perfectly from the very first moment. There were no frictions or disagreements.

Below is the way in which the responsibilities have been divided and the hours worked by each member.

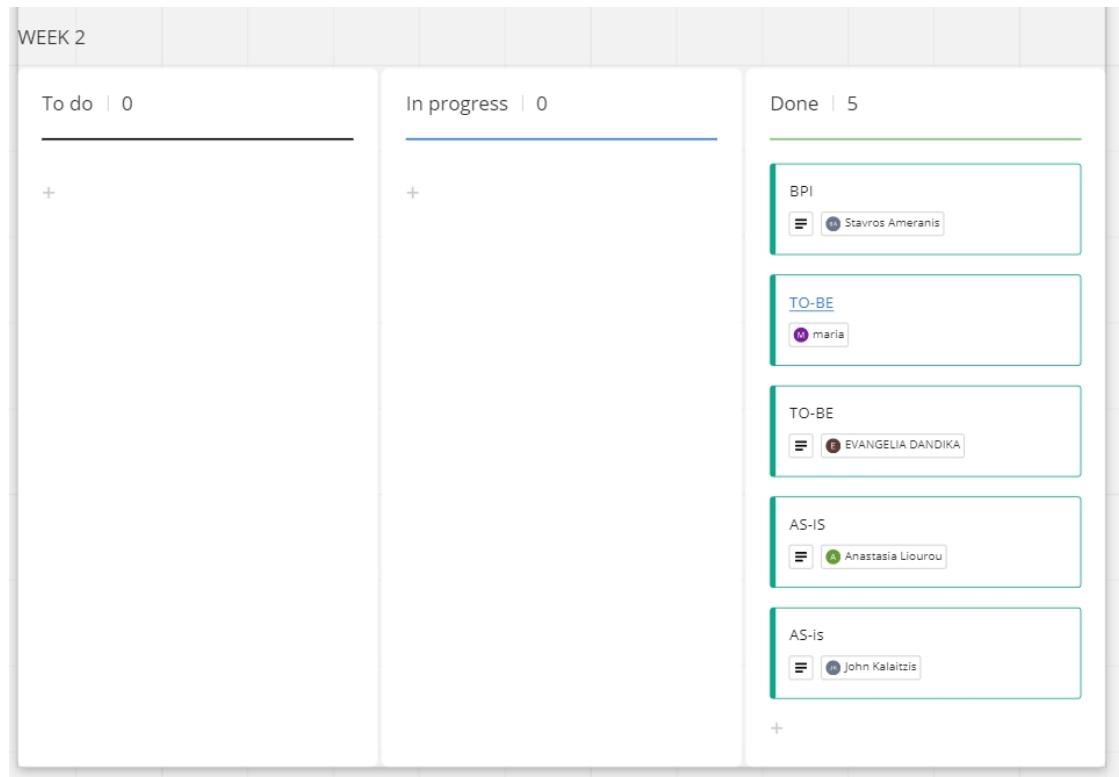
Our first meeting was face-to-face and was held for reconnaissance purposes. We were formally introduced and the way of working was defined.

WEEK 1- Analysis of the work topic and Preparation Phase (System Application, Feasibility Study)



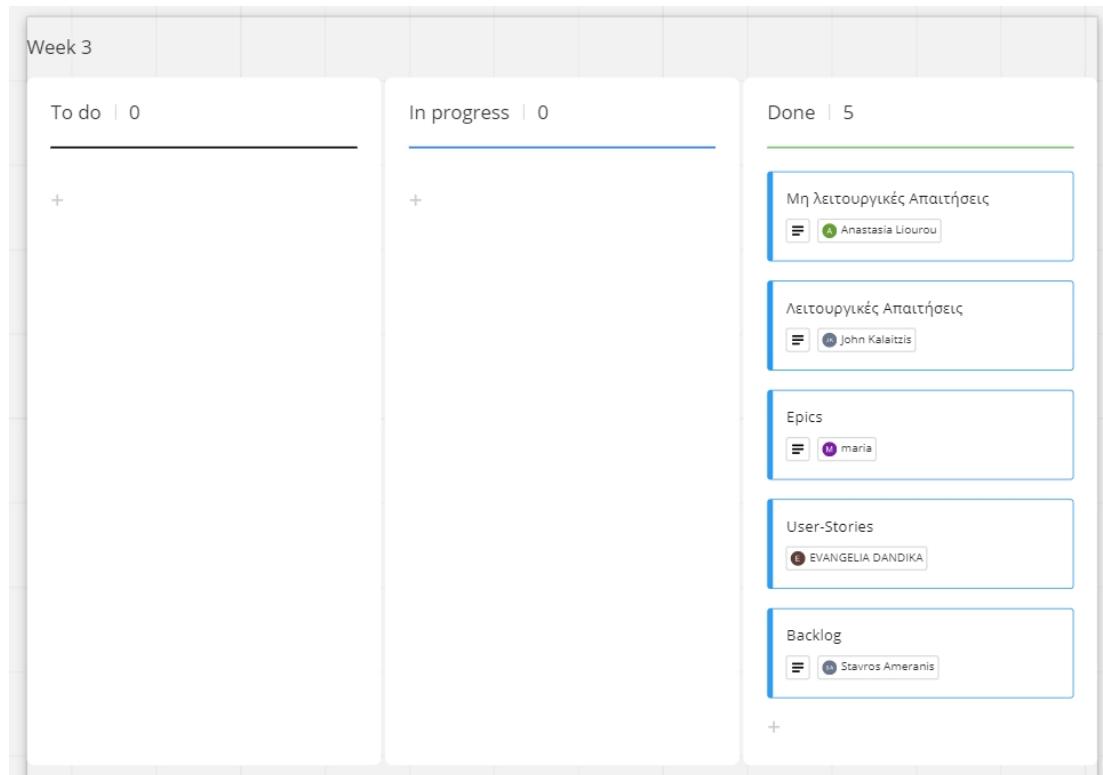
NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	2	4
ARABATZI MARIA	2	4
DANDIKA EVANGELICA	2	4
KALAITZIS IOANNIS	2	4
LIURU ANASTASIA	2	4

WEEK 2- BPA, BPI or BPR, List of business processes, Activity Diagrams for each business process for AS-IS and, if necessary, also for TO-BE



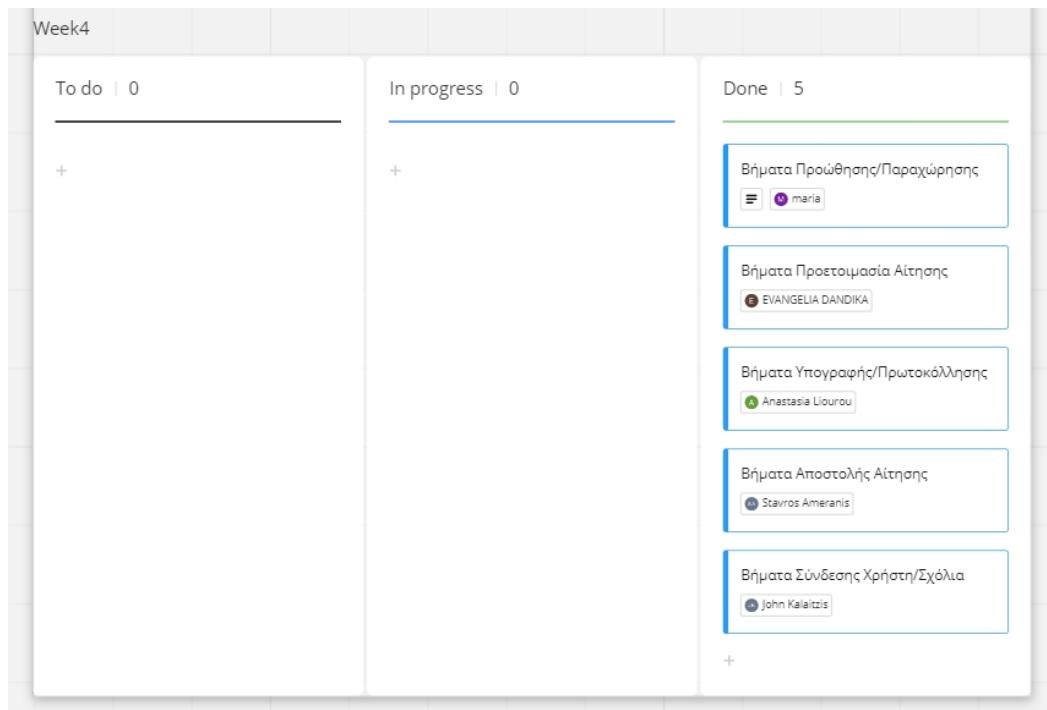
NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	1,5	3
ARABATZI MARIA	3	3
DANDIKA EVANGELICA	3	3
KALAITZIS IOANNIS	3	3
LIURU ANASTASIA	3	3

WEEK 3- User requirements



NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	4	3
ARABATZI MARIA	2,5	3
DANDIKA EVANGELICA	3	3
KALAITZIS IOANNIS	2	3
LIURU ANASTASIA	2	3

WEEK 4- Use case diagram



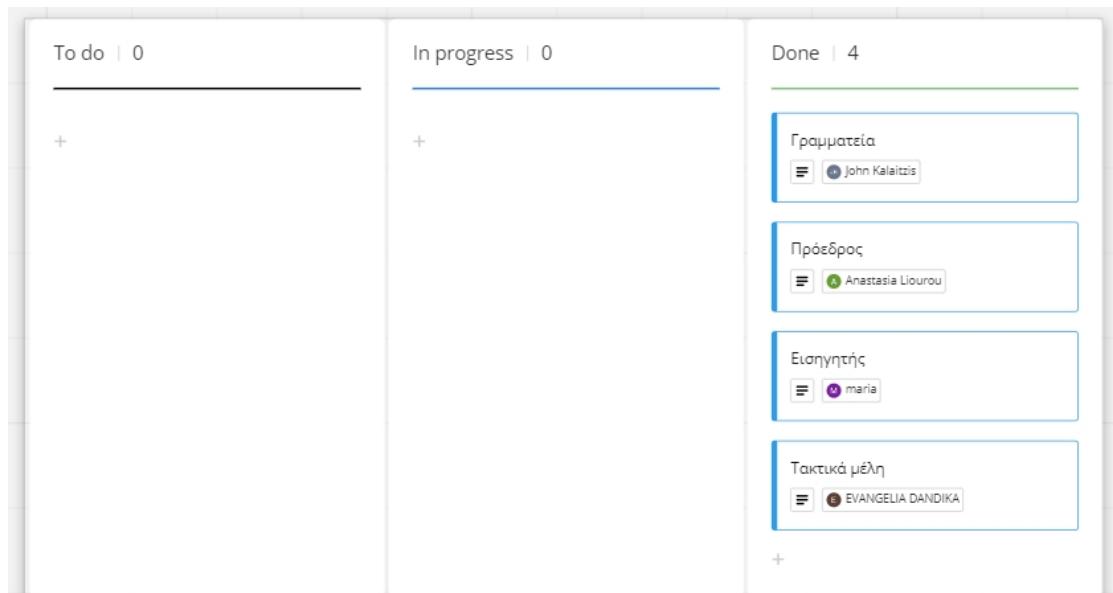
NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	2	4
ARABATZI MARIA	2	4
DANDIKA EVANGELICA	2	4
KALAITZIS IOANNIS	2	4
LIURU ANASTASIA	2	4

WEEK 5- Verbal descriptions of use cases and mock-up screens

NAME	INDIVIDUAL WORKING HOURS	GROUP WORK HOURS (2 LIFELONG MEETINGS)
AMERICAN CROSS	3	7
ARABATZI MARIA	3	7

DANDIKA EVANGELICA	4	7
KALAITZIS IOANNIS	4	7
LIURU ANASTASIA	3	7

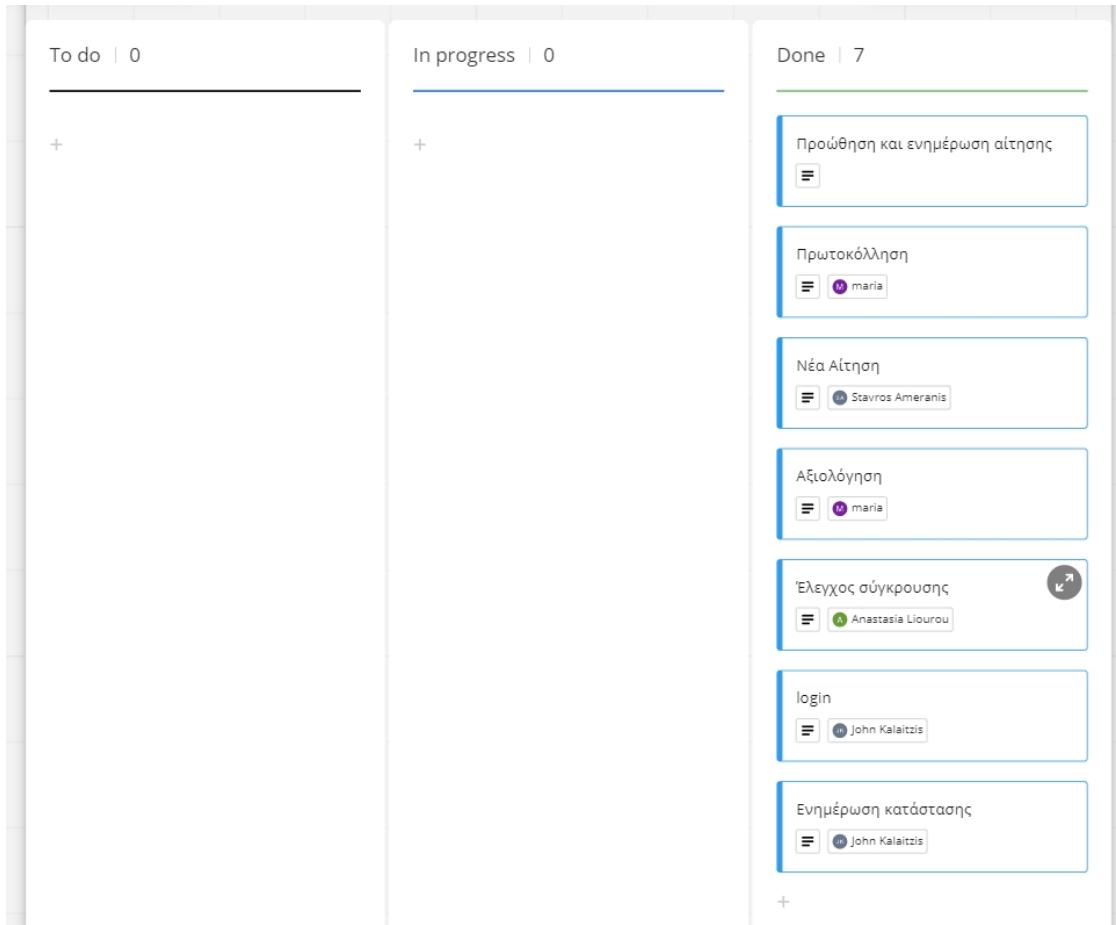
WEEK 6- Class and object diagram - Presentation



NAME	INDIVIDUAL WORKING HOURS	GROUP WORK HOURS (1 LIFELONG MEETING)
AMERICAN CROSS	2	5
ARABATZI MARIA	2	5
DANDIKA EVANGELICA	2	5

KALAITZIS IOANNIS	2	5
LIURU ANASTASIA	3	5

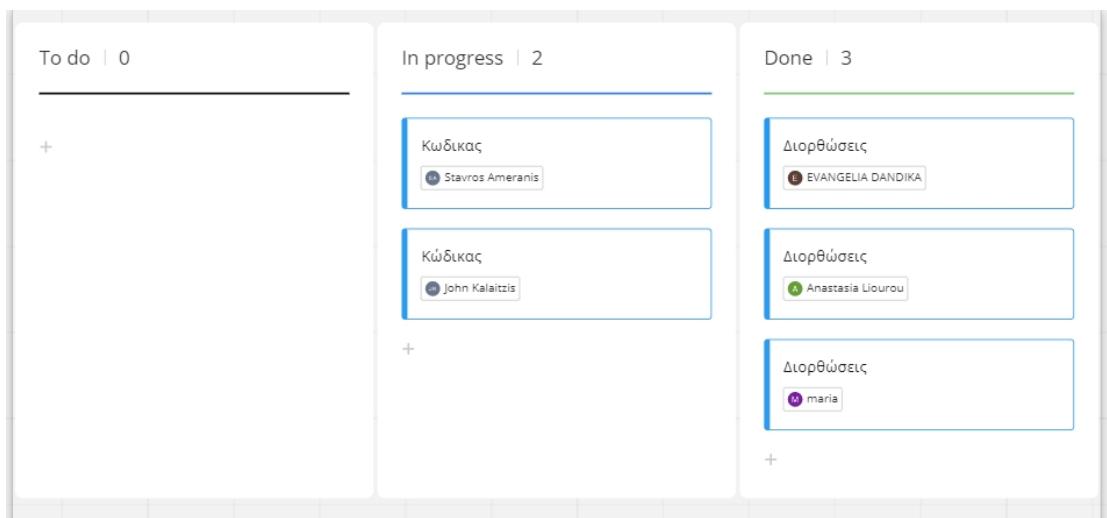
WEEK 7- Sequence diagrams



NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	4	4
ARABATZI MARIA	3	4

DANDIKA EVANGELICA	3	4
KALAITZIS IOANNIS	3	4
LIURU ANASTASIA	3	4

WEEK 8- Code and corrections



NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	6	6
ARABATZI MARIA	4	5
DANDIKA EVANGELICA	4	5
KALAITZIS IOANNIS	6	6

LIURU ANASTASIA	4	5
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WEEK 9 - Drafting of the final project

NAME	INDIVIDUAL WORKING HOURS	GROUP WORKING HOURS
AMERICAN CROSS	5	3
ARABATZI MARIA	4	4
DANDIKA EVANGELICA	4	4
KALAITZIS IOANNIS	5	3
LIURU ANASTASIA	4,5	4

