FEUP – Informatics and Computer Engineering

HCI Winter Semester 2022 – 2023

Uni Event Life

Final Report and Presentation

T14 – Group 4

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Phase 1 – User and Task Analysis

Project Description

For this project we decided to tap into the niche of university events, the idea is to have a harmonious bond between school life and bohemian life, we want the student body to have the means to be as productive as possible during their school time by having a place where all university events are congregated, there they can check which events are coming up in the upcoming days, and if they so desire, to register themselves in said events.

We also want to have a place where university student cores and groups can congregate themselves, where they can post recruitment openings and their own events.

Similar Products

In the business of event cataloging and dissemination, we found three that stood out to us, Blue ticket, Facebook events and the government's newsletter. In essence they all function in the same way, or at least have common goal. As for Blue ticket, their modus operandi revolves around the selling of tickets to events, they allow institutions to register events and users to buy tickets to said events. They also handle some of the marketing for the events in their site, by showcasing new events on their front page.

Blue ticket:

- Event registration
- Event dissemination

Facebook events is the most rounded of the three we found, they allow users to both create the events and invite friends to the created events, as well as allowing users to register themselves. Facebook also handles some of the marketing for the events through the use of their algorithms, although these are, sometimes, not as good as manual recommendations.

Facebook events

- Event creation 4
- Event registration
- Event dissemination

The Portuguese government has a newsletter to which any one can register, most people don't know this, but this newsletter serves as a broadcast for a very big panoply of events, they range from simple museum collections to more complex events like orchestras, they all have

one thing in common, the government is the one to patron these events, as such, most events are free and require no registration.

Questionnaire

As a means to get to know our target audience, we performed a questionnaire that explored the questions we had about the potential users of our system. After performing some analysis to the responses we got, the following are the conclusions we could draw. Personal info: The vast majority of the questionees are male (82,4%), they are almost all between the ages of 18 and 23(76,5%), all are from Portugal, meaning we didn't query any Erasmus students, with the exception of one student, all questionees are fulltime students. In terms of academic year, the predominant year was the third, with 70% being from that year but there were also first- and second-year students who responded to the questionnaire. Academic life: From the questionnaire we observed that on a day-to-day basis almost all except one student check their schedule and 76,5% access class materials. The top two places where students access this information is Moodle and the UNI app, but unfortunately 82,4% of our questionees learned to use these apps/websites through trial and error with a small negligible percentage asking a friend for help.

Project:

Everybody that replied to our questionnaire said they would like to see a new app/website with their favorite features with 64,7% preferring an app over a website. One functionality was more predominantly picked over the others, it being a hub for all relevant university and student organized events. Most people would be comfortable to share their personal information and, they would expect their app to work right away not having to wait more than 30 seconds. When asked what they would do when their app froze people had a mixed response, with the majority preferring to reboot the app (52,9%) and others going back and retrying the same thing (35,3%) that caused the freezing, waiting was the least popular choice with 11,8%.

Answers to the 11 questions

4.1 Who are the users?

The users are students, ages between 18 and 23, mostly men although we want to be as ungendered as possible but that was an unfortunate incident with the questionnaire we made, aimed mostly at Portuguese students, but once again we intend to be open to more international, we found that mostly third year students were the ones answering to our questionnaire, but students from all years are welcome and expected to use our system.

4.2 What tasks do they perform? The main tasks users already perform on existing apps are, verify their school schedules, access course materials, create events, register for events, invite others to events and promote their own events.

4.3 What tasks are desirable?

After analyzing the answers we got from the inquiry, the requested features that do not appear in other services were to have a map and preferably a GPS of the university, and an easier way of checking the attendance conditions for different classes.

4.4 How are tasks learned?

From the people we queried, the majority reported to us that unfortunately trial and error was the method they had learned ow to use other services.

4.5 Where are tasks performed?

Moodle and the UNI app were the unanimous response from our questionnaire.

4.6 What is the relationship between user and information?

The information required per user is the email, phone number and picture, which according to the answer we got from the questionnaire, they would be willing to share, access would have to be made through Sigarra so we can access the user's schedule and course specific information. For the student cores, the same as the students would apply.

4.7 What other instruments doe the user have?

They can access other services to get most things done through the use of a mobile app or a website.

4.8 How do users communicate?

Users don't have the ability to communicate between them, the only interaction between users is sending invitations to events.

4.9 How often tasks are performed?

Users, unanimously, use the schedule feature and check their classes materials every day several times.

4.10 Are there time restrictions?

We want the most common actions to be as snappy and quick as possible, taking no longer than 3 to load, incidentally, users said they wouldn't wait longer than 30 seconds for an app or feature to respond or refresh after a user input.

4.11 What happens if something goes wrong?

The service may freeze, crash, or slow down due to sever issues, in such cases, users said they would refresh the app or go back to a previous step and retry doing the same actions again.

5- PERSONAS

We devised 3 personas as a means to represent our potential users according to the questionnaires we did. We tried to be as broad as possible, but obviously not all potential combinations of types of users could be made into a standalone persona.

Name - Maria Alves

Quote - “Be who you are and say what you feel because those who mind don’t matter and those who matter don’t mind.”

Age – 21

Education Level - Informatics engineer student

Family - Single Location - Porto, Portugal

Work/occupation – Fulltime 1st year student

Technological Proficiency - Adept

Preferred devices - Phone

Archetype - Artist

Traits - Imaginative, spontaneous, humorous, childish

Narrative: As a first-year student Maria is wholly new to the goings of university life, be it from finding new and interesting activities, places to eat or even finding her classrooms in time, all of it is very overwhelming for a first-year student. She doesn’t, currently, have much time to spend doing what she likes most, photographing events, cityscapes, and its peoples, since she must be constantly juggling different sources of information for new activities and spots to be with her new friends.

Objectives/needs:

- She wants to be informed of new restaurants and new activities to do with her new friends.
- She wants to learn of new places to visit for her drawings.
- She wants to know where her classes are on campus.

Frustrations:

Since she is new to university life, and the university campus in general, she doesn’t know where anything is, or of any interesting spots or things happening near her. It would be great to know when and where new events and activities are happening near the university campus, so she could go with her friends.

Name - Jorge Antunes

Quote - “Curiosity is the spark behind the spark of every great idea”

Age – 22

Education Level - Informatics engineer student

Family - Single

Location - Porto, Portugal

Work/occupation - Fulltime 2nd year student

Technological Proficiency - Superb

Preferred devices - Laptop

Archetype - the curious one

Traits - Cheerful, dedicated, disciplined, extraordinary, imaginative, responsible

Narrative: Currently in the second year in the University of Engineering in Porto. He is very curious and looking forward to this new year in university. He is always looking for new technologies in the tech world in order to be more knowledgeable. As he's already a second-year student, he already knows how his university works and where the best spots are, that's why he and his friends always go to the same ones they like to eat lunch. Unfortunately, he doesn't know about several other activities that could be happening around his campus.

Objectives/needs:

- He is always looking for new things around campus involving technology.
- He likes to know new people and to make new friends, especially involving activities in his campus.

Frustrations: Since he is stuck to his routine with his friends, he doesn't get to know new places in his campus. Not being able to find information about new events or reports on activities around campus, he's stuck to experience the same things over and over.

Name - Hugo Costa Quote - "Quid pro quo"

Age - 20

Education Level - Completed Highschool, College student

Family - Single

Location - Porto, Portugal

Work/occupation – Fulltime 3rd year student

Technological proficiency - High

Preferred devices - Phone, laptop

Archetype – The innocent one

Traits - decisive, knowledgeable, responsible, creature of habit, impatient

Narrative:

Someone that is already very familiar with the college services, and that already created the habit of using a variety of different tools to do the tasks he needs. Would prefer to have a place where he could check all events happening near the university. His time studying

computer engineering and using tech in general made him very proficient in it and very aware of the importance of online privacy. So, he values services that abstain from collecting, sharing, or selling user's data, or at least values the ones that give the user control over what is done with their data.

Objectives/needs:

- Values privacy and security .
- Likes to engage in his university events.

Frustrations:

Having to use so many different apps, sometimes for a single small feature. sometimes it’s not very clear what kinds of data apps are collecting about him.

Activity Scenarios

We came up with 2 activity scenarios that should in essence represent the bulk of the tasks a user would do.

1 - An individual opens the app and scrolls through the main menu, where he browses for upcoming events. Once a specific event catches the user’s attention he can click on it, which will redirect him to the event page, where he will have access to more information on it. He can then register for the event. After this, a message indicating that the registration was successful will appear and the user will be redirected to the main menu again.

2 - An event organizer opens the app and selects a group or student core he is part of. He can now select the option for organizing a new event. After inserting all the event details, he can submit it, and it will show up on the main menu where users can sign up for it. If there are new sign ups, the organizers will be notified of it every so often.

7- CONCEPTUAL MODEL

Objects(attributes):

- User (name)
- Event (local, date, organizer(group))
- Group (name, members(users))
- Calendar

Actions:

- Create, edit, and cancel events
- Create, edit, and delete groups
- Invite users to groups
- Invite users to events
- Apply to groups
- Sign into events

- Browse and interact with the calendar

Relations:

- Groups have users
- Groups can organize several events
- Users can be in several groups
- Users can participate in several events
- Events can be organized by one or more groups
- Calendar has events

FUNCTIONALITIES AND TASKS

Functionalities the app should enable:

-Logging in with UP account

-Search for events

-Search for a student core

-Event registration

-Share with friends

Tasks:

-Using a phone, a student longs into the system to view all available events there are.

-The student searches for a specific kind of event using a combination of keywords.

- The student wants to find a student core for a specific area of interest, so he searches the app for one, using a combination of keywords.

-A student wants to go to an event, so he's registering himself on the system as attending.

-The student, after registering himself as attending the event, invites his friends to the same event by sending them an in-system invite to the event.

USABILITY REQUIREMENTS

Efficacy:

Core tasks like searching and registering for events and student groups should be clear to understood by the user, with no less than 85% of users being able to figure it out at a glance. ~

Not so common tasks should be better explained to users when the need arrives, for instance when many different options are presented to the user.

Efficiency:

Tasks should not lag for a significant amount of time, 82.4% of the inquired in the questionnaire claimed that they would wait less than 30 seconds to access certain functionalities of the app.

Most users want to be able to complete core tasks in 1 minute or less, with 4 or less clicks (80%). This includes signing in for an event, joining a group and creating events.

Satisfaction: Privacy should be a main concern of ours, users should not be prompted to share any personal info that is not strictly required for an event.

We want to be the preferred method for student to search for events and student groups around campus. More than 80% of users claimed they would use our platform again to perform these kinds of tasks.

CONCLUSIONS

We can, with the inquiries we made, confirm that there is a place for a system like the one we are making, there are already some similar services to ours, but they don't check all the boxes, with what is already available, users are forced to use multiple apps or websites to achieve what our service would be able to.

These limitations that we found during these inquiries to potential users, would be addressed by us, in conjunction with a good interface and it being a place where events can be congregated and disseminated to users our system would be able to far surpass the existing ones.

As such, the necessary requirements to progress to the next phase of the project have been achieved.

Phase 2 – First Prototype and Heuristic Evaluation

Project Description

Our project has the objective of conglomerating all student core groups and events that belong to the university setting, all within the same platform.

Event organizers and student core members can conveniently create, manage and promote their events and groups. Users can see all the available groups and events, easily get information about them and if interested, they have a quick way to sign-up.

Functionalities

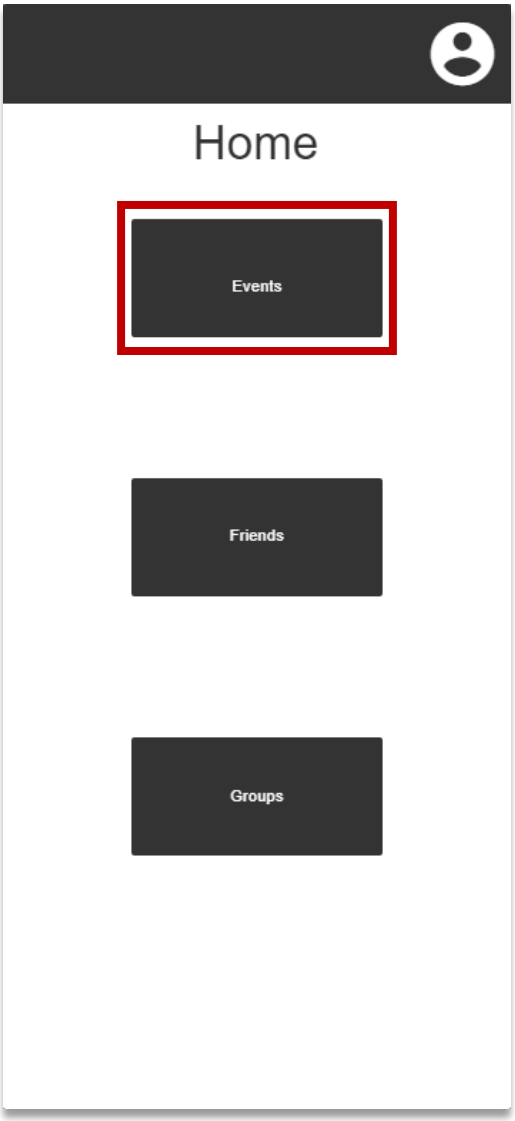
- Browsing and signing-up for events.
- Organizing and managing events.
- Sending and receiving friend requests.
- Creating and joining groups with friends.

Tasks

- Register yourself in the Basketball Tournament Event
- Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts".
- Create and event called "Chess Tournament", that will be held at the 10th of November, starting at 15:00, in FEUP I101.

Prototype’s Wireflow

Task 1: Register yourself in the Basketball Tournament Event (p. 1)

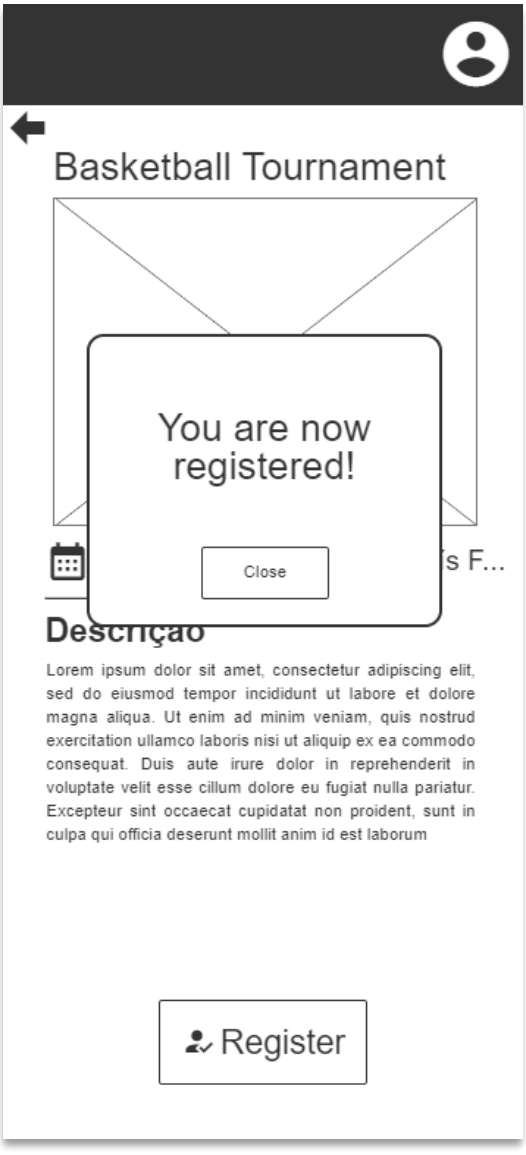


1. Starting in the Main Menu, the first step is to click the “Events” button.

2. That will lead you to the Events page. Here, select the event you are interest in, in this case, the Basketball Tournament.

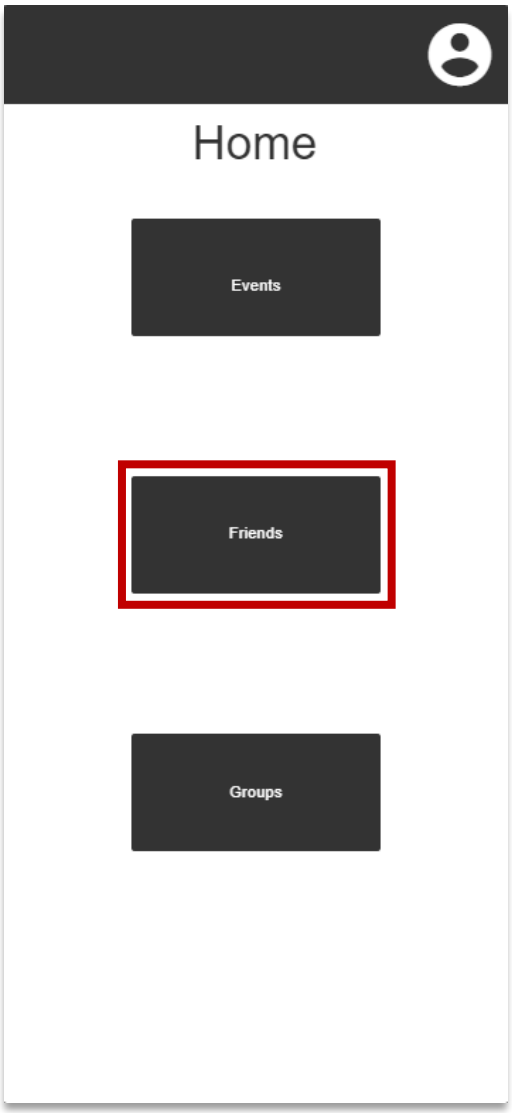
Task 1: Register yourself in the Basketball Tournament Event (p. 2)

3. Now you are in the Basketball Tournament event page. Here you can see information on the date, time and place of the event, also an image and short description. To sign-up to the event, click the "Register" button.

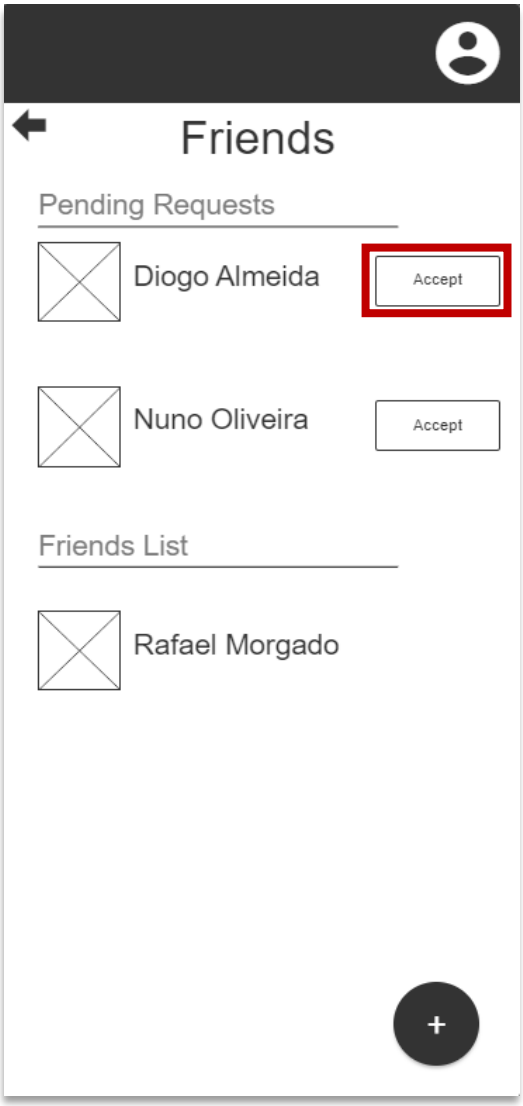


4. You are now registered! A pop-up message will appear confirming you successfully registered for the event. The task is complete, you can close the pop-up and continue using the app.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 1)

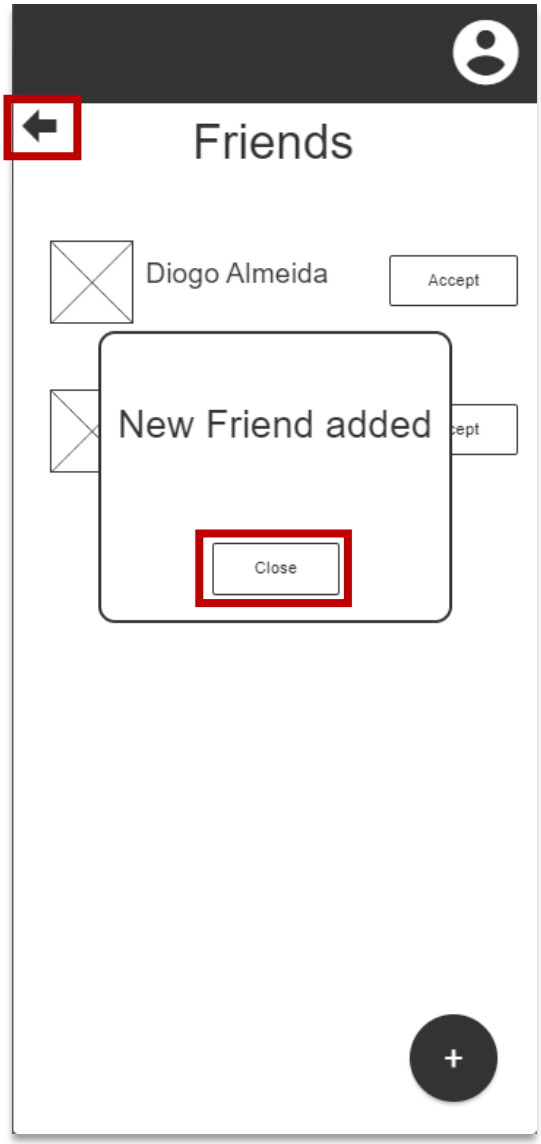


1. *Starting in the Main Menu, the first step is to click the "Friends" button.*

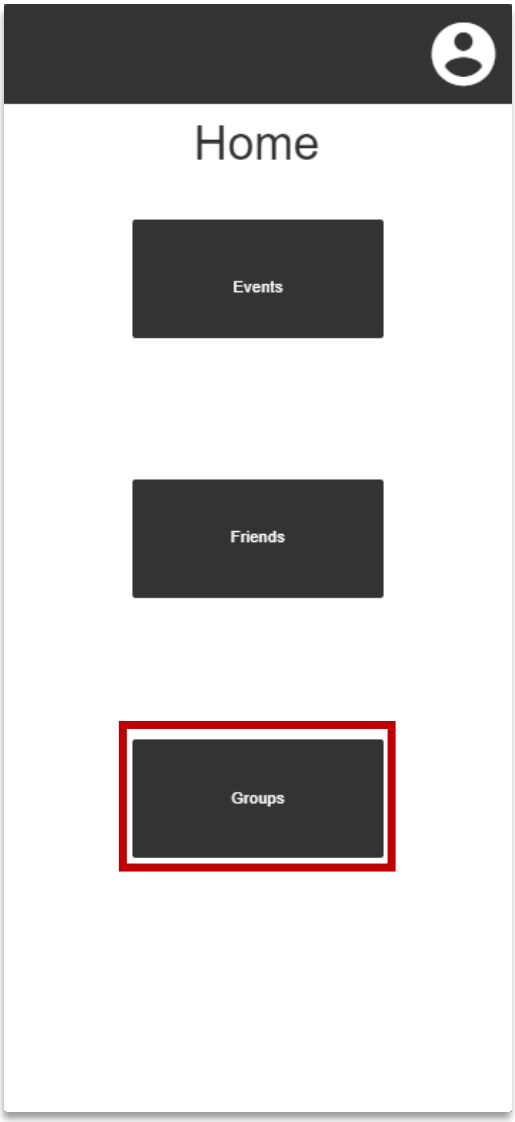


2. Now that you are on the Friends page, you can see pending friend requests alongside with your friend list. Click the accept button to accept your friend Diogo's request.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 2)

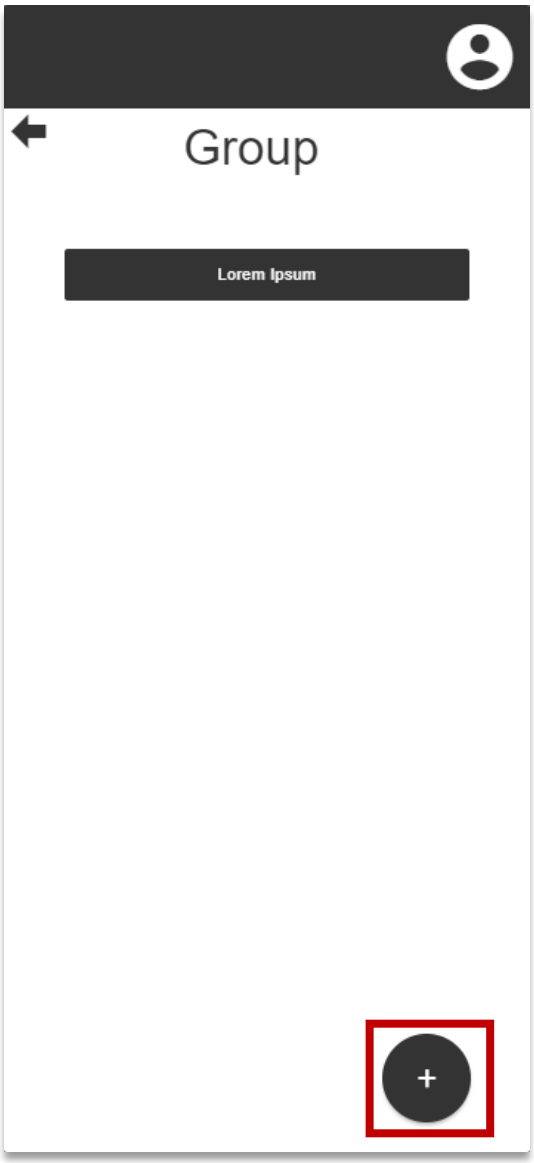


3. A pop-up message will appear that you successfully accepted the request. Close the pop-up and use the back arrow button to return to the Main Menu.

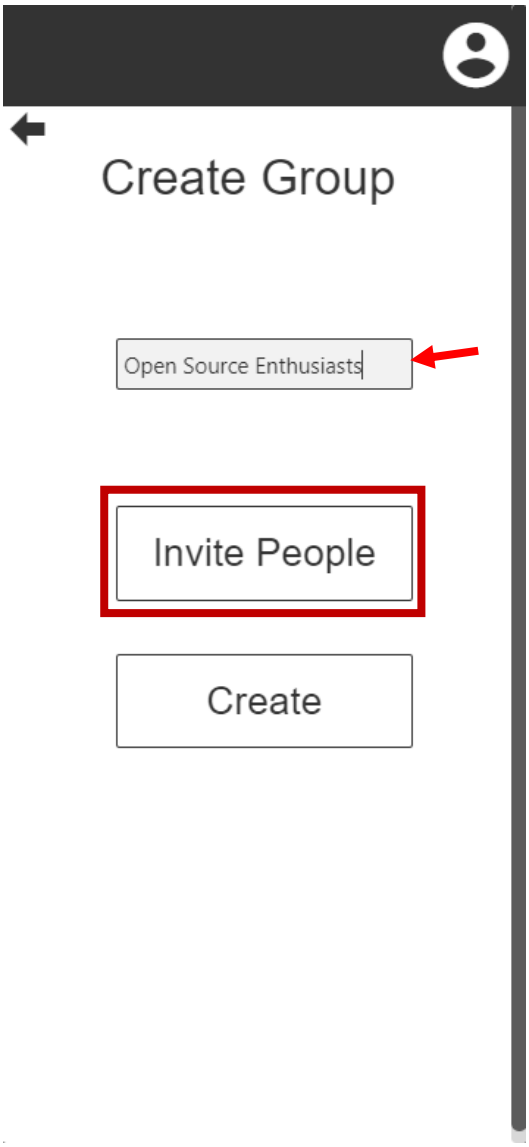


4. Now that you are back in the Main Menu, click the "Groups" button.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 3)



5. In the Groups page you can see groups you already are a part of. Click the "+" button to create a new group.



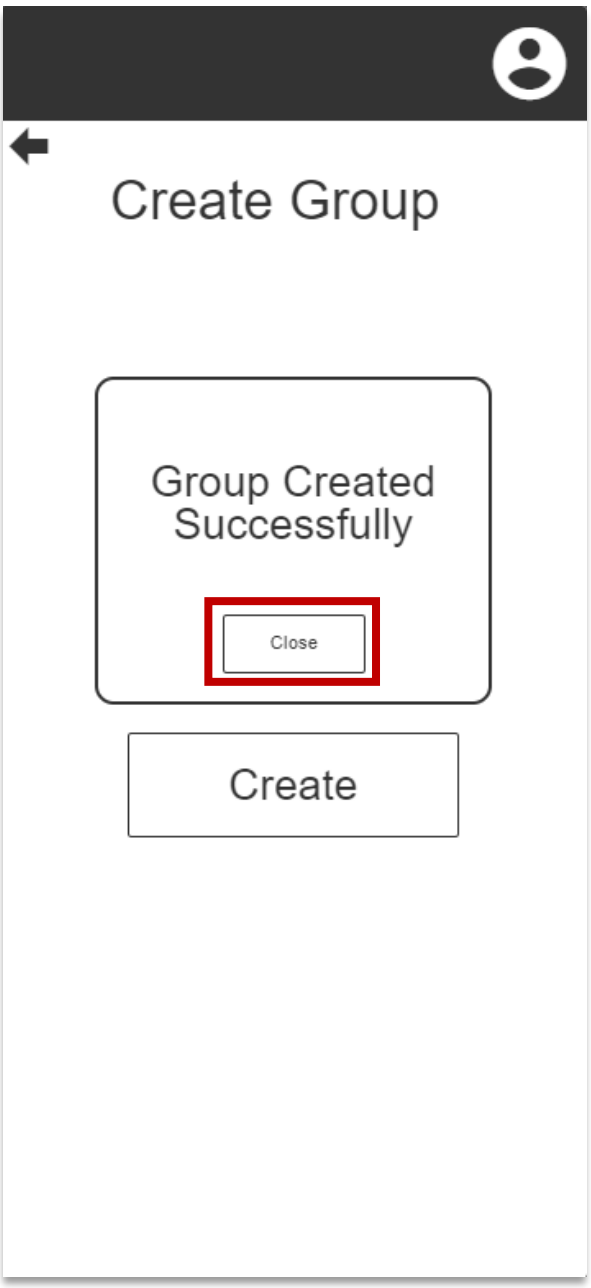
6. Now that you are in the group creation section, insert the name of your group, "Open Source Enthusiasts", and click the "Invite People" button to invite your friends.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 4)

7. Tick the boxes in front of the friends you wish to invite, and once you selected them click the "Invite" button.

8. You are redirected back to the group creation section, now that you have inserted the group name and invited your friends, click "Create".

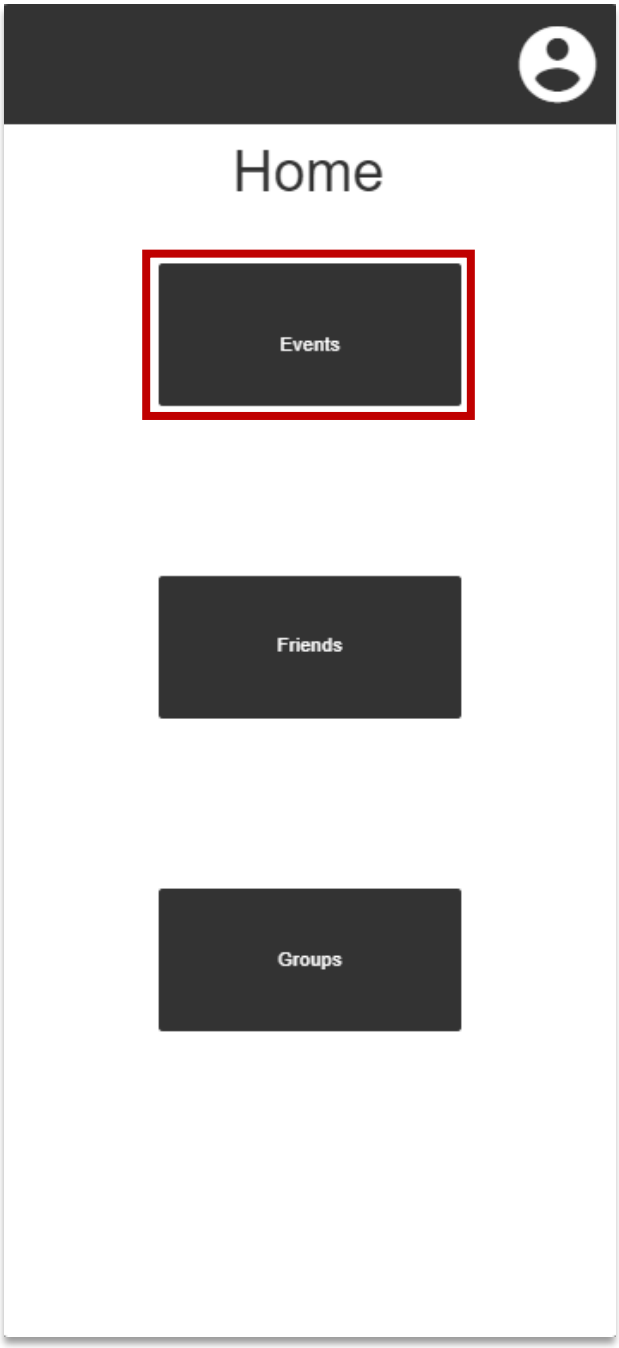
Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 5)



9. A pop-up message appears confirming you successfully created your group. Close the pop-up message.

10. As you can see, the group you created appears you in Groups page now. The task is now complete.

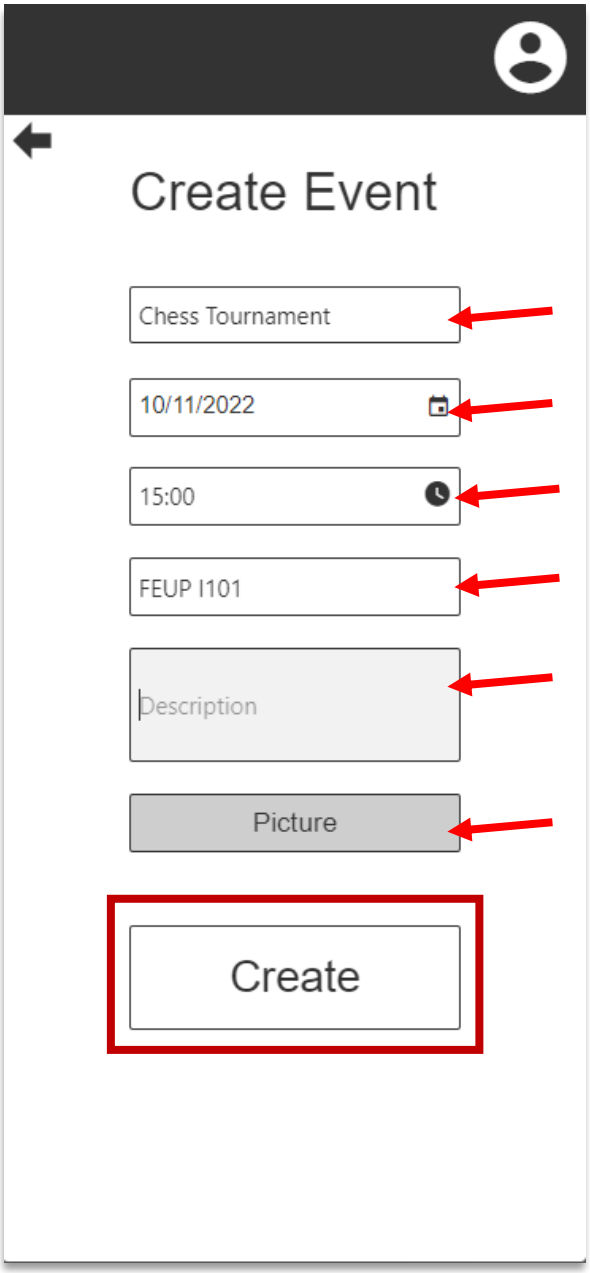
Task 3: Create and event called “Chess Tournament”, that will be held at the 10th of November, starting at 15:00, in FEUP I101 (p. 1)



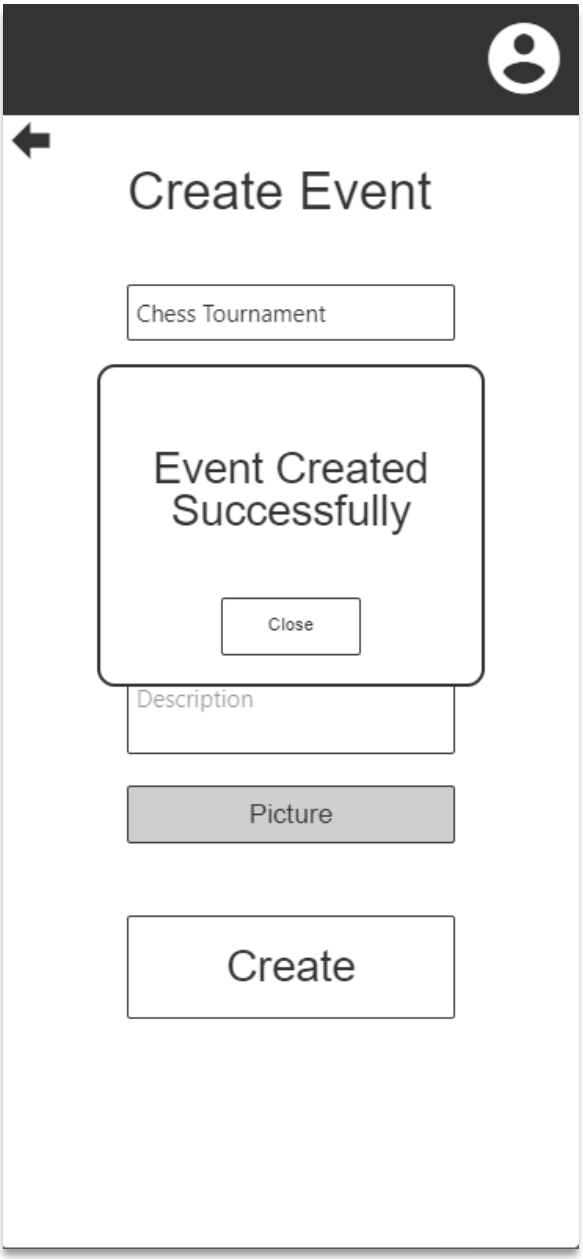
1. Starting from the Main Menu, click the “Events” button.

2. Now that you are in the Events page, click the “+” button to create a new event.

Task 3: Create and event called “Chess Tournament”, that will be held at the 10th of November, starting at 15:00, in FEUP I101 (p. 2)



3. In the event creation section input the information about your event: the name, date, time, location, a short description and a picture (from top to bottom). Once you are finished you can click the “Create” button.



4. A pop-up message appears confirming you have successfully created the event. Close it to continue.

Task 3: Create and event called “Chess Tournament”, that will be held at the 10th of November, starting at 15:00, in FEUP I101 (p. 3)

5. You are redirected to the page of the event you just created. The task is complete.

Heuristic Evaluation Results

Since the two groups that evaluated our project did not identify any common error, this section will be divided into two sections, one for each group of evaluators.

Group 3 Evaluation

The evaluators from group 3 identified the following errors in our prototype:

- There is not any interaction possible within the groups (Match between system and real world, severity 2).
- There is no personal profile section (User control and freedom, severity 3).
- Not possible to send friend requests, only accept ones sent by other users (Consistency and standards/Error prevention, severity 3).
- No filtering of events (Flexibility and efficiency of use, severity 2).
- (Some) choices of button designs are no intuitive to the user (Aesthetic and minimalist design, severity 1).

We found that most of these errors, while valid and severe, were result of use of the prototype outside the scope of the main objective: completing the tasks.

However, as already pointed out, they are valid and severe.

Before the presentation of the prototype the following changes were made: a (somewhat limited) personal profile section was added, the option to send friend requests was added, and the designs for some buttons were changed to ones we believe to be more intuitive. Therefore 3 of the 5 errors were already corrected.

Group 5 Evaluation

The evaluators from group 5 identified the following errors in our prototype:

- The “Create” section in the Main Menu is not intuitive for the creation of groups and events (Recognition rather than recall/Flexibility and efficiency of use, severity 2).
- The event creator cannot edit event details after its creation (Help users recognized, diagnose, and recover from errors, severity 4).
- It is possible to create an event to a past date (Error prevention, severity 2)
- Creating an event should allow for the insertion of more concise data (e.g. a short description) Match between system and the real world, severity 3).
- The information regarding an event is poorly organized in the event’s page (Aesthetic and minimalist design, severity 1).
- When a user signs-in for an event, he should be prompted to enter some additional information (Consistency and standards, severity 2)
- Adding members to a group should not require the member’s full name as input (Error prevention/Flexibility and efficiency of use, severity 2)

Creating an event to a past date, even though a valid error, is something we believe is fair to attribute as a limitation of the prototype's platform, since correcting this bug would require for some type of programing to verify the current date and time, and only allow the creation of events from that point forward.

The last error the evaluators pointed out, referring to the need of inserting the full name of a user in order to invite him to group is, we assume, the result of misinterpretation of the platform (which we might consider a problem as well). However, the process to add a user to a group does not require the input of any name. It is done by selecting users from the Friends List using a checkbox.

Before the presentation of the prototype the following changes were made: the "Create" section from the Main Menu was removed and replaced by a more intuitive option in the Event and Group pages; the event creation section was fixed to allow the insertion of more concise data, and so was the event pages, so the information on the event would be presented in a more readable and intuitive form.

Corrections to perform in Phase 3

As mentioned before, some of the errors pointed out by our colleagues were already fixed.

We plan to perform the following corrections for phase 3, as suggested by our colleagues and teacher:

- Allow for interaction in groups (group chat, add/kick members).
- Allow for creators to edit details on their events and groups after their creation.
- Filtering and sorting of events (according to date, category, organizer, etc.).
- After inviting friends to a group, we can actually see that we have friends invited.
- After registering for an event, the button should change to display the some sort of "signed up" status.

Conclusions

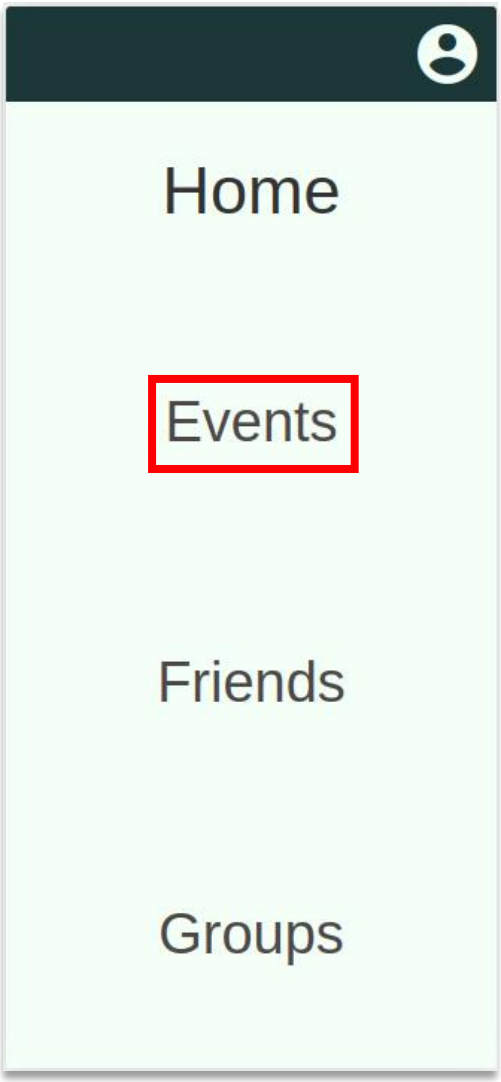
We conclude that, as we predicted, not always the design choices that seem intuitive for us, as "developers" are actually intuitive for the first time user. However we still believe that with corrections suggested we will be available to build an intuitive and efficient prototype that satisfies the purpose of our project: building a platform that will have and university related events and groups in one place.

Phase 3 – Second Prototype and User Evaluation

Prototype's Wireflow

Live Version URL

Task 1: Register yourself in the Basketball Tournament Event (p. 1)

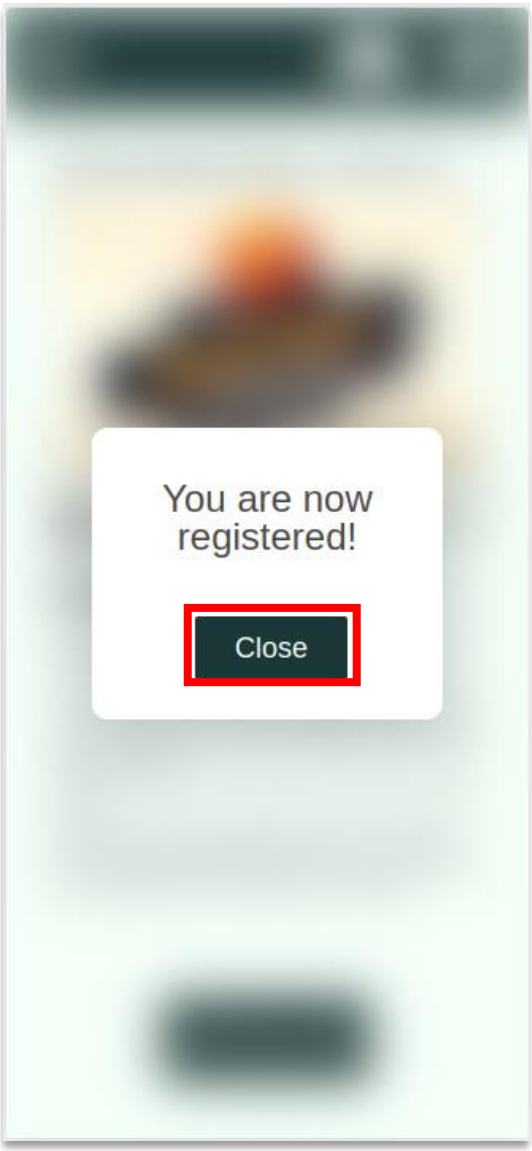


1. Starting in the Main Menu, the first step is to click the "Events" button.

2. That will lead you to the Events page. Here, select the event you are interest in, in this case, the Basketball Tournament.

Task 1: Register yourself in the Basketball Tournament Event (p. 2)

3. Now you are in the Basketball Tournament event page. Here you can see information on the date, time and place of the event, also an image and short description. To sign-up to the event, click the "Register" button.



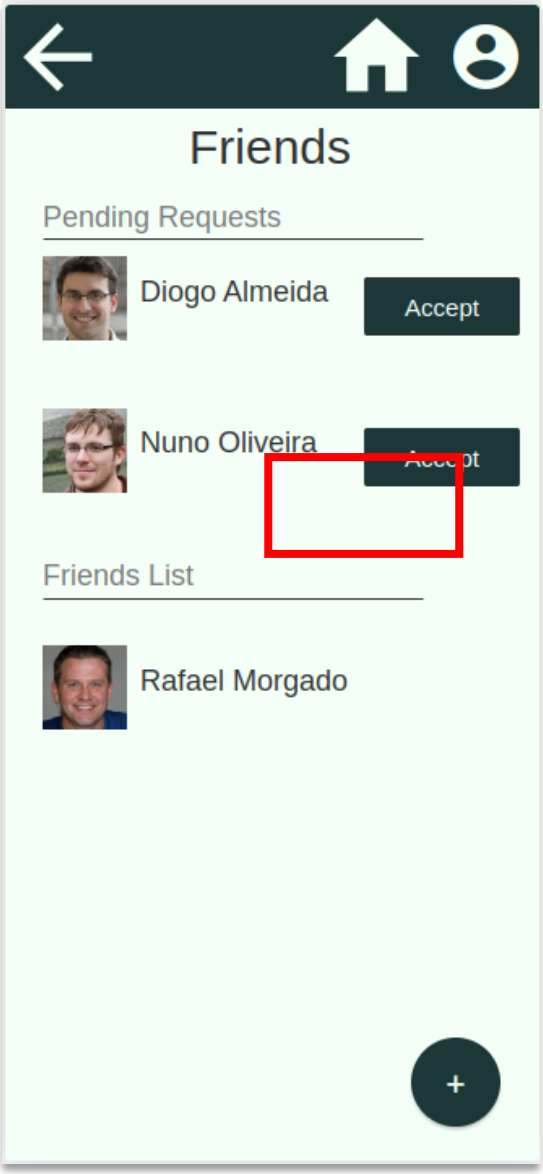
4. You are now registered! A pop-up message will appear confirming you successfully registered for the event. Closing the popup will redirect you to the event page.

Task 1: Register yourself in the Basketball Tournament Event (p. 3)

5. You are now in the event page. As you might have noticed, the Register icon visual changed, indicating you are registered in the event. The task is now complete.

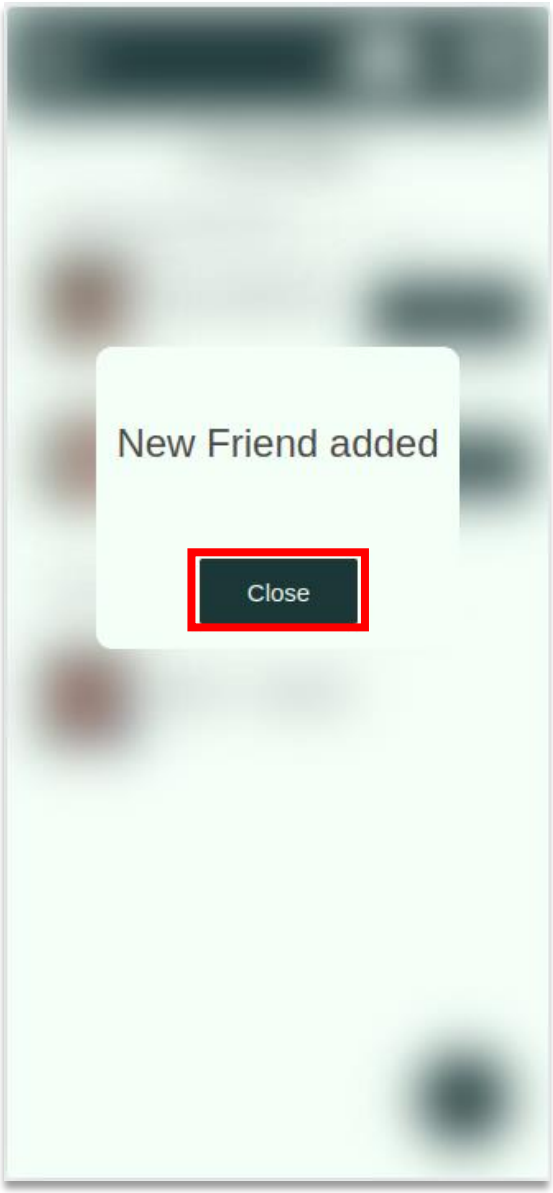
Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 1)

1. *Starting in the Main Menu, the first step is to click the "Friends" button.*

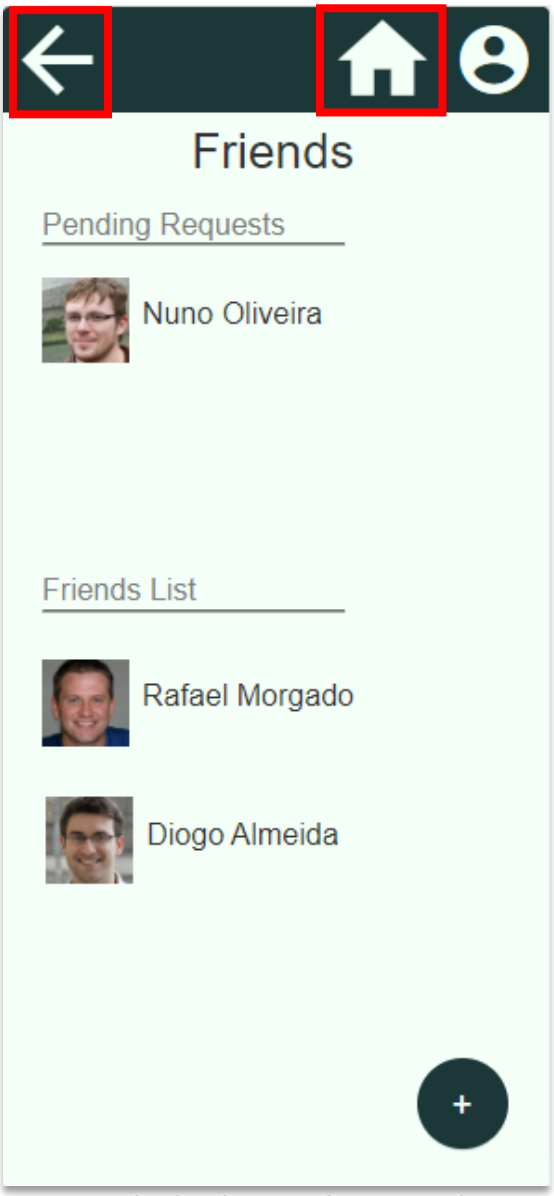


2. Now that you are on the Friends page, you can see pending friend requests alongside with your friend list. Click the accept button to accept your friend Diogo's request.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 2)



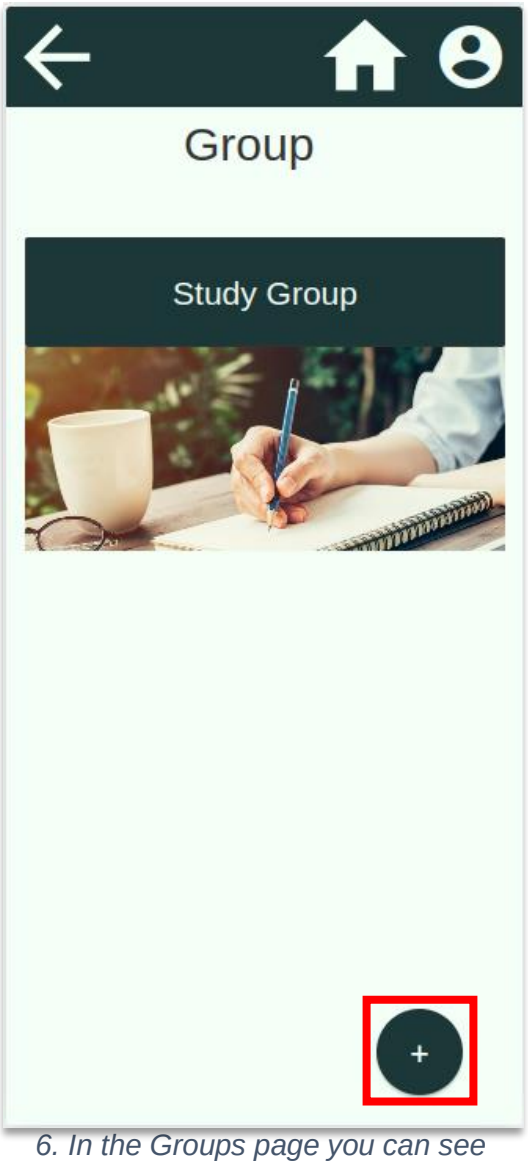
3. A pop-up message will appear notifying you successfully accepted the request. Close the pop-up.



4. Use the back arrow button or the Home button to return to the Main Menu.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 3)

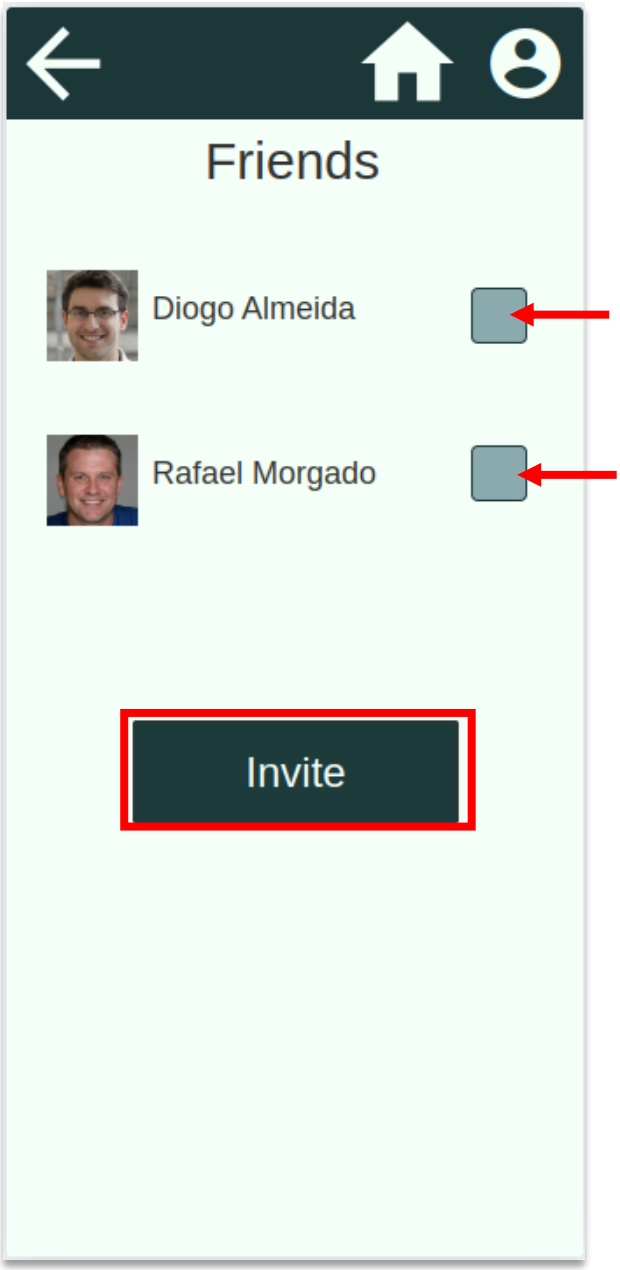
5. Now that you are back in the Main Menu, click the "Groups" button.



6. In the Groups page you can see groups you already are a part of. Click the "+" button to create a new group.

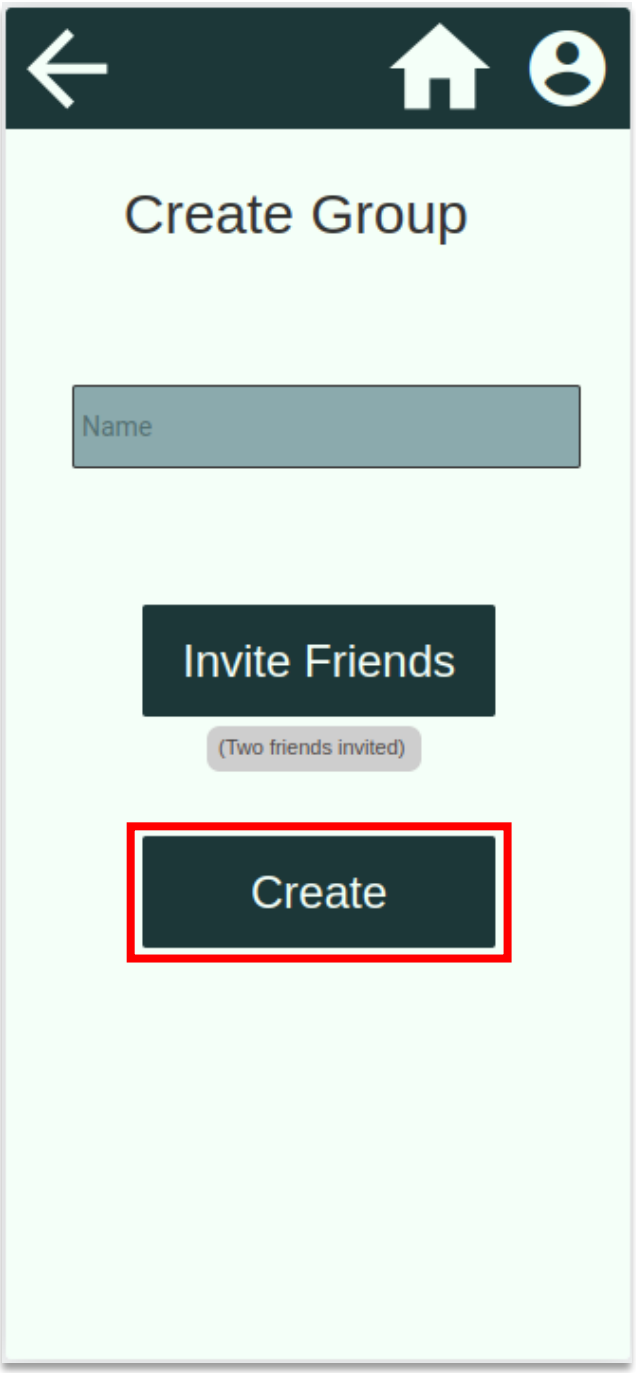
Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 4)

7. Now that you are in the group creation section, insert the name of your group, "Open Source Enthusiasts", and click the "Invite People" button to invite your friends.

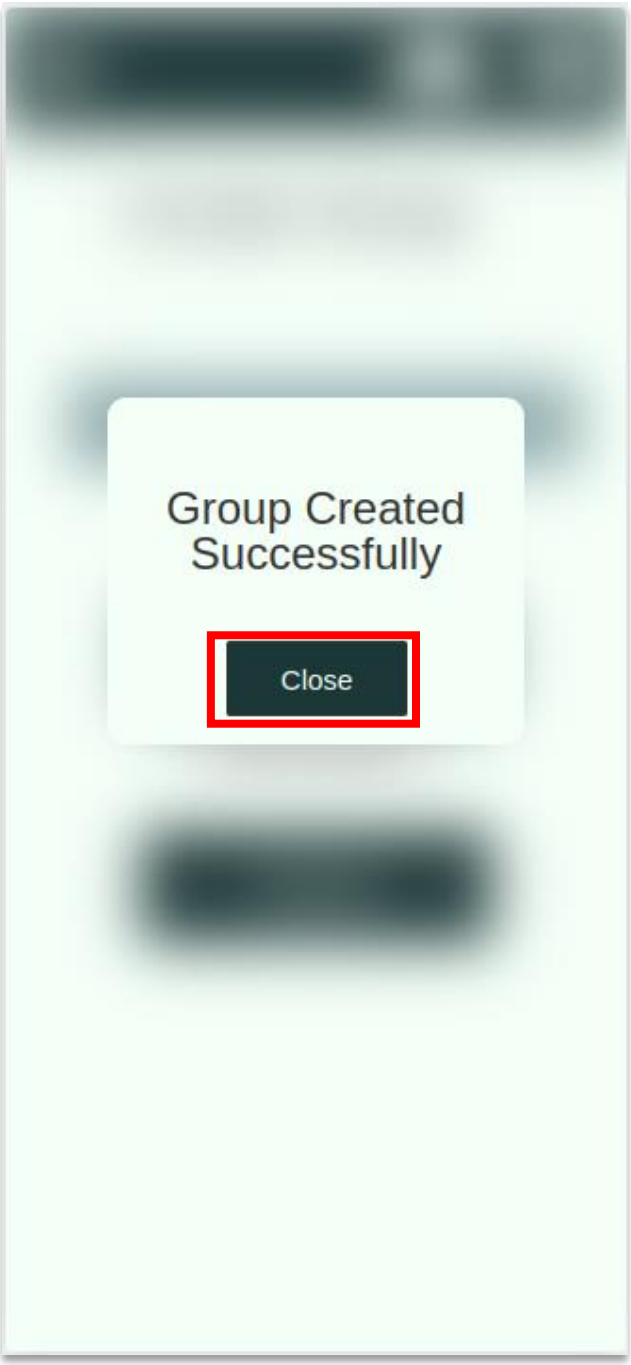


8. Tick the boxes in front of the friends you wish to invite, and once you selected them click the "Invite" button.

Task 2: Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open Source Enthusiasts" (p. 5)

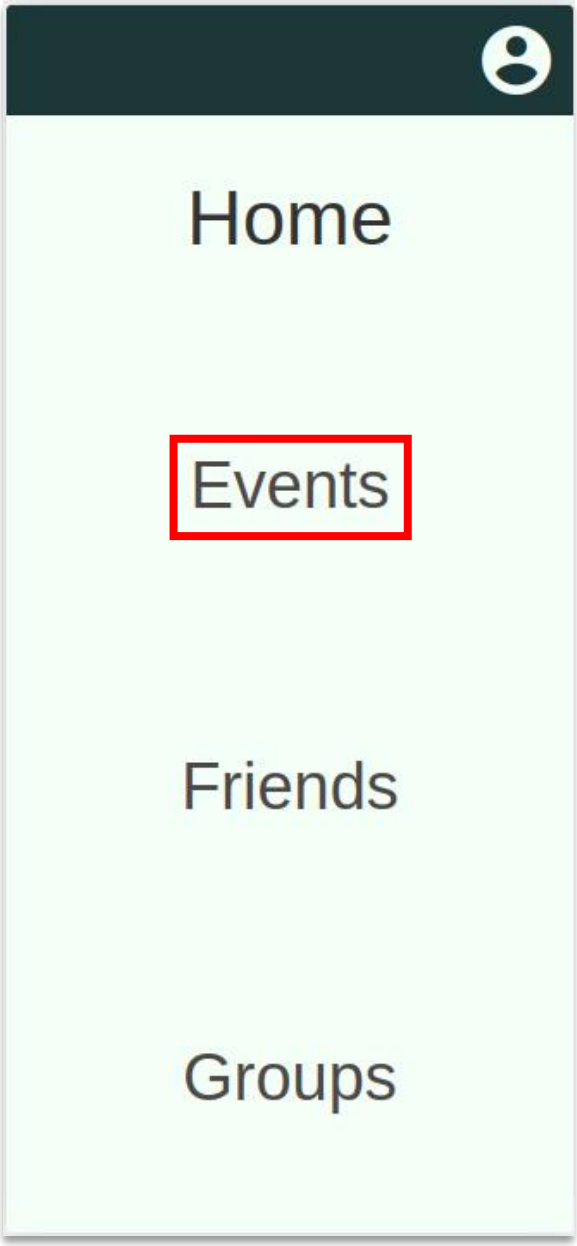


9. You are redirected back to the group creation section, now that you have inserted the group name and invited your friends, click "Create".



10. A pop-up message appears confirming you successfully created your group. The task is now complete.

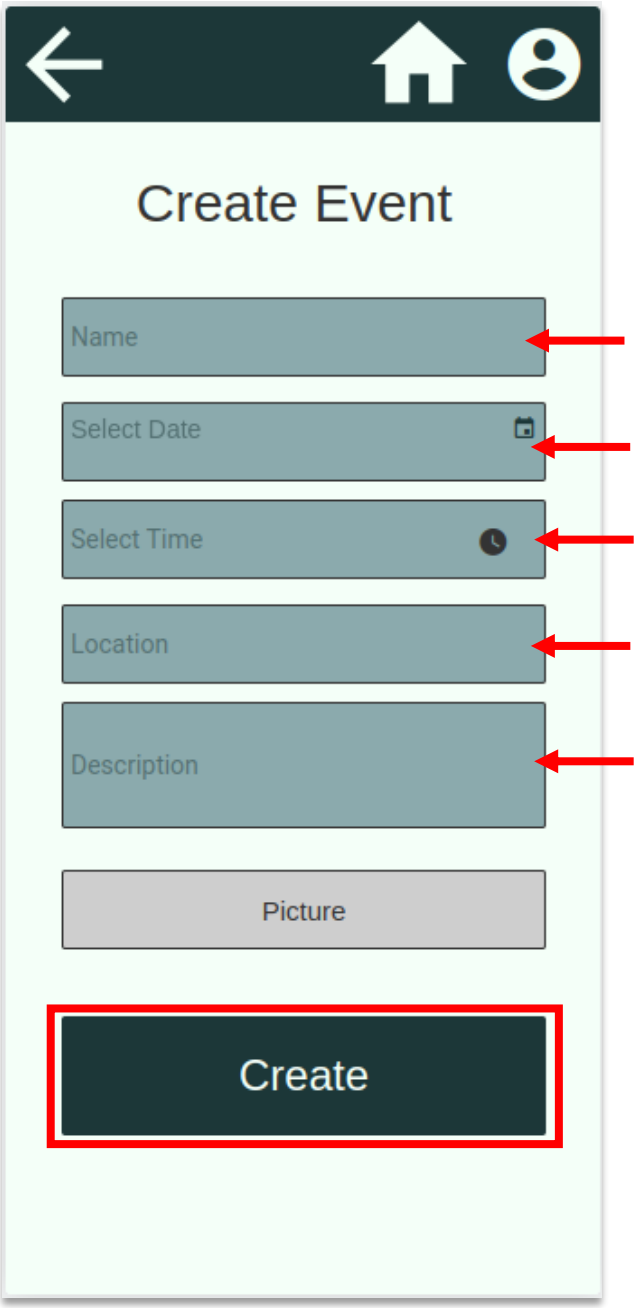
Task 3: Create and event called “Chess Tournament”, that will be held at the 10th of November, starting at 15:00, in FEUP I101 (p. 1)



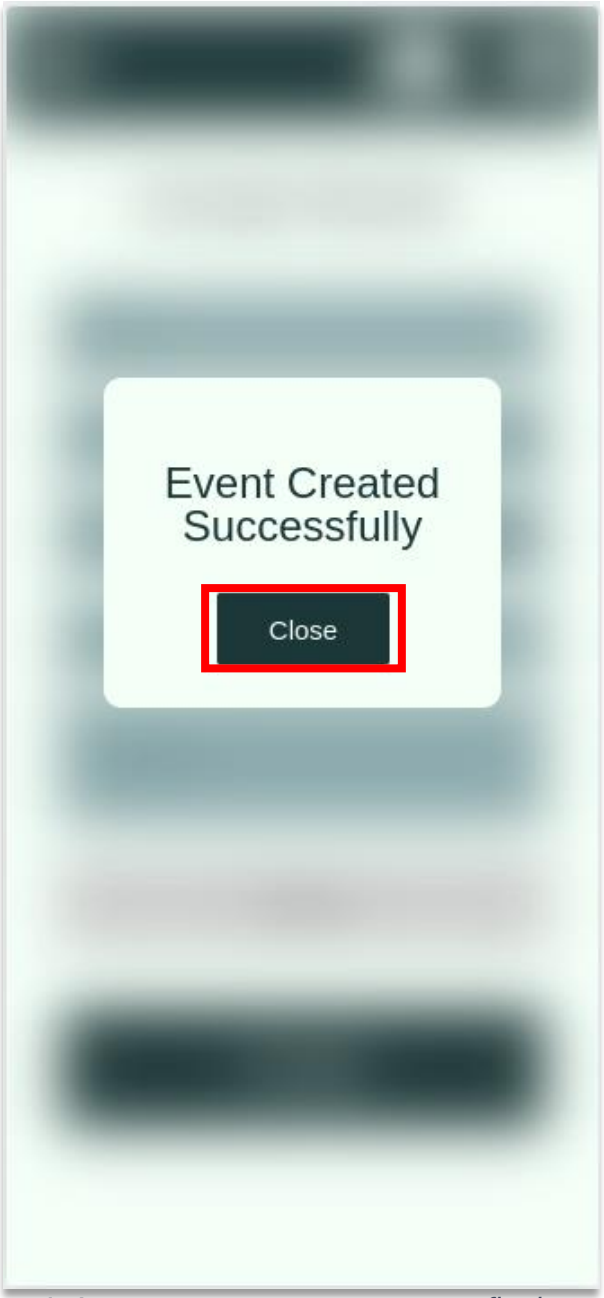
1. Starting from the Main Menu, click the “Events” button.

2. Now that you are in the Events page, click the “+” button to create a new event.

Task 3: Create and event called “Chess Tournament”, that will be held at the 10th of November, starting at 15:00, in FEUP I101 (p. 2)

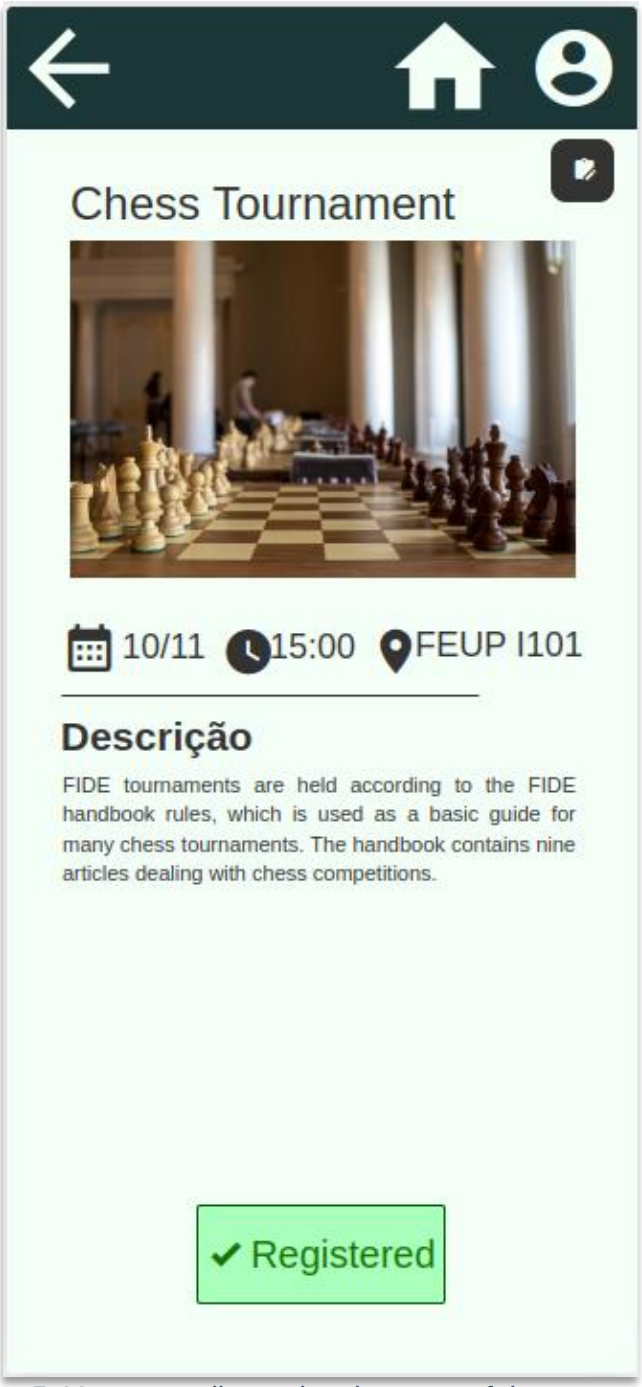


3. In the event creation section input the information about your event: the name, date, time, location, a short description and a picture (from top to bottom). Once you are finished you can click the “Create” button.



4. A pop-up message appears confirming you have successfully created the event. Close it to continue.

Task 3: Create and event called “Chess Tournament”, that will be held at the 10th of November, starting at 15:00, in FEUP I101 (p. 3)



5. You are redirected to the page of the event you just created. As you can see, you are automatically registered in the event, and since you are the creator, there is an icon on the top right corner that allows you to edit event details. The task is complete.

User Evaluation Protocol

Objective and Method

At the start of each evaluation, the participants were presented with the following objective:

“This application has the object of conglomerating all student core groups and events that belong to the university setting.
In it you will be able to find future and ongoing events, get more detailed information on them and if interested, sign-up. You can also add your friends and join friend groups. As an event organizer you also get a tool to easily organize and promote your events.

In order to test our app, we will give you some time to freely explore the app. Later we will give you a set of tasks within the app for you to complete and then answer some questions about.

It is important to understand that it is the application that is being evaluated, not you. So, there is no need to feel pressured or stressed during this evaluation. If you do, please let us know as the evaluation can be ended at any time.”

The following step in the evaluation was asking the participant a small set of personal questions: age, degree and year of the degree, self-evaluation on technological expertise (on a rate of 1 to 5).

Now the participant would get some time to freely explore the app. During this phase the evaluator should not give any input or tips on the app, to avoid disrupting the natural learning process of the participant. This time should not exceed 5 minutes, but this enforcement was not necessary since all users complete this phase under that time.

Once the participant is done exploring the first task would be introduced. Each task started in the main menu of the application and on a reset prototype. The measures for each task were manually tracked by the evaluators. After the completion of this task, the participants were asked to answer the following questions:

- On a scale of 1 to 5, how difficult was the task?
- On a scale of 1 to 5, how intuitive did you find the flow of the app?
- On a scale of 1 to 5, how efficient are the functionalities used in this task?

This same process was repeated for the two other tasks.

After all the tasks were completed the users were once again asked to answer some questions, this time on the overall application, not on the context of the tasks alone. These were the questions:

- On a scale of 1 to 5, how would you rate the difficulty of use of the app?
- On a scale of 1 to 5, how would you rate the visual design of the app?
- On a scale of 1 to 5, how would you rate the smoothness and feel of the app?
- Would you use this app in the future? (y/n)
- Would you recommend this app? (y/n)
- If you were to change anything, what would it be? (Open answer and not mandatory)

Users

Our initial goal was to recruit random participants using university group chats, being our target audience engineering students, but due to time constraints the participants recruited were mainly friends and colleagues of the evaluators.

For this evaluation, 10 people were sampled, ages between 20 and 26, majority of them were engineering students with an average technological expertise of 4.

Tasks and Measures

The tasks used in this evaluation were the same designed for the Phase 2 of the project:

- Register yourself in the Basketball Tournament Event.
- Accept your friend Diogo's request and create a group with Diogo and Rafael called "Open-Source Enthusiasts".
- Create an event called "Chess Tournament", that will be held on the 10th of November, starting at 15:00, in FEUP I101. The event has no picture.

Besides the questionnaires already presented above, in the Objective and Method section, the following measures were tracked: time to complete (seconds), number of clicks, number of times asked for help, and number of mistakes.

In the table below, we have laid out the satisfaction measures for each task, set before the evaluations.

	Time	Clicks	Asked for help	Mistakes
Task 1	>60 sec	>7	>2	>2
Task 2	>120 sec	>21	>4	>5
Task 3	>120 sec	>15	>3	>3

Results and statistical analysis

Results

These were the results for the personal inquiries:

Age	Degree	Year of Degree	Tech Expertise (1-5)
20	LEEC	3	4
23	Economia	4	3
20	LEM	3	4
24	Law	4	4
25	Mathematics	4	3
20	Orthoptics	3	4
20	LEIC	3	5
26	MIERSI	5	4
20	LEIC	3	5
23	LECI	3	4

These were the results for Task 1 measures and inquiries

Time	Clicks	Ask for Help	Mistakes	Difficulty (1-5)	Intuition (1-5)	Efficiency (1-5)
9	4	0	0	1	5	4
10	5	0	1	1	4	4
7	4	0	0	1	5	5
6	4	0	0	1	4	4
20	8	0	3	4	4	5
8	4	0	0	1	5	5
7	4	0	0	1	5	5
8	4	0	0	1	5	5
9	4	0	0	1	5	5
11	5	0	0	2	5	5

These were the results for Task 2 measures and inquiries

Time	Clicks	Ask for Help	Mistakes	Difficulty (1-5)	Intuition (1-5)	Efficiency (1-5)
31	14	0	0	1	5	5
52	16	5	6	3	3	3
16	13	0	0	1	5	5
27	8	0	0	2	4	4
28	12	0	4	2	1	4
23	12	0	0	1	5	5
29	15	0	2	2	4	4
30	13	0	0	2	4	5
15	13	0	0	1	4	5
46	17	4	5	3	2	4

These were the results for Task 3 measures and inquiries

Time	Clicks	Ask for Help	Mistakes	Difficulty (1-5)	Intuition (1-5)	Efficiency (1-5)
49	11	0	0	1	4	4
57	13	1	0	1	5	5
36	12	0	0	1	5	5
46	10	0	0	1	4	3
43	12	0	0	1	5	5
23	10	0	0	1	5	5
38	11	0	0	1	5	5
41	13	0	0	1	5	5
25	11	0	0	1	4	5
32	12	0	0	1	4	5

These were the results of the final inquiries:

Difficulty (1-5)	Visual Design (1-5)	Smoothness and feel (1-5)	Would you use in the future	Would you recommend	What would you change
1	5	5	N	N	Time selection on event creation
2	4	4	Y	Y	Multiple languages available
1	2	3	Y	N	Better design
1	3	4	Y	Y	Better design
1	3	5	Y	Y	Most noticeable option for inviting friends to groups
1	3	5	Y	Y	Location on event creation could be selected using Map
1	4	4	Y	Y	Main Menu Home sign looks like a button
1	3	4	Y	N	Main Menu Home sign looks like a button
1	4	5	Y	N	-
3	2	4	N	Y	Better design

Statistical Analysis

Task measurements

	Time				Clicks			
	Average	St. Dev	Median	95% Conf. Int	Average	St. Dev	Median	95% Conf. Int
Task 1	9,45	3,78	8,5	[7,11 - 11,79]	4,6	1,2	4	[3,86 - 5,34]
Task 2	29,7	11,06	28,5	[22,84 - 36,56]	13,3	2,37	13	[11,83 - 14,77]
Task 3	39	10,02	39,5	[32,79 - 45,21]	11,5	1,02	11,5	[10,86 - 12,14]
	Mistakes				Help			
	Average	St. Dev	Median	95% Conf. Int	Average	St. Dev	Median	95% Conf. Int
Task 1	0,4	0,92	0	[0 - 0,97]	0	0	0	0
Task 2	0,9	2,28	0	[0,29 - 3,11]	0,9	1,81	0	[0 - 2,02]
Task 3	0	0	0	0	0,1	0,3	0	[0 - 0,29]

Task inquiries (Rating 1-5)

	Difficulty		Intuition		Efficiency	
	Mode	Median	Mode	Median	Mode	Median
Task 1	1	1	5	5	5	5
Task 2	1, 2	2	4	4	5	4,5
Task 3	1	1	5	5	5	5

Overall Application inquiries (Rating 1-5)

Difficulty		Visual Design		Smoothness and Feel	
Mode	Median	Mode	Median	Mode	Median
1	1	3	3	4	4

- 80% of participants would use the app again
- 60% would recommend the app to a friend

In the first task all the tracked measurements fall below the requirements, indicating that the application, regarding that task, was well designed. The ratings resulting from the user inquiries also indicate positive results, with low difficulty and high intuition and efficiency ratings.

Similarly, all measurements in the second task also fall below the requirements, but with an increase in the number of mistakes and times asked for help, possibly due to this being a longer task that required more steps to complete. Even though not as positive as the remaining tasks, the ratings for the task inquiries are still satisfactory. So, we have justification to believe that the procedures for this task were properly designed.

For the third and last task, once again, all measurements fall below the requirements. This task stands out for having no mistakes and a single ask for help, out of all the participants. Like the first task, the inquiries ratings display a perfect score, with low difficulty rating and high intuition and efficiency ratings.

Regarding the inquiries on the overall application the results were more divisive. On a positive point, the difficulty of use of the app was pointed as being the lowest possible, and the results for the smoothness and feel of the app are also positive, However, with a mode and median of only 3 we have reason to believe our visual design was a weak point. Also positive aspects, 80% of the users claim they would use the app again, and 60% would recommend it to a friend.

Despite the overwhelming positive results, there are some points that can be made regarding their credibility.

First, we might assume that the requirements for the measurements that we first set were too conservative and maybe not realistic enough to match what an user would expect. The best example for this were the time requirements for completion of a task, were we now admit that a requirement allowing such a simple task as Task 1 to take close to 1 minute to complete is too unambitious.

Second, the point that having mostly friends and colleagues as participants might have affected the results. Even though the measurements for the tasks are still valid under this point, the results for the inquiries could have been affected because of the relation between the participants and evaluators.

Conclusions

With this project we were able to grasp the fundamentals of HCI, through the process of realizing user research, prototyping, evaluating, and improving the prototype.

With the feedback we got from Phase 2 we were able to create a prototype that, after the user evaluation and statistical analysis from Phase 3, we can confirm is designed in a way that maximizes the User Experience.

This is still a vertical prototype, focusing mainly on the functionalities necessary for completing the three tasks we set, as these were the requirements for the project.