DEU EVENT PROJECT

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1. Introduction

1.1 What the Problem is

Every week, hundreds of events take place throughout the country, which you can improve yourself, contribute to your education, meet different people, have fun and suits your interests. However, we are aware a few of these events. For this reason, we lose the chance to participate in events such as theater, concerts and improve our vision, and stay away from various conferences, panels and summits for our interests. We miss the opportunity to access advice and information about our career, as well as the opportunity to meet with experts who can contribute to us. Sometimes we can't catch up our interests because of the intensity of our daily life. Deu Event is a desktop application developed to find solutions to these problems. It provides an easy search experience with its user-friendly interface, making it easier for you to spend time with recommending activities you are interested in.

1.2 Goals for the Project

This software, called 'DEU EVENT', will organize the events, creates schedules, suggests new events to user in user friendly online environment. Allows users to search events with special filters. Only registered users will be able to utilizes the advantages of the app like improved AI technology which releases the events from users last events. Also users personal information is securely stored.

Users will be able to search events by the events name, city or any tag about the event also they can reach all events wide range of information like url to buy tickets, content of the event, rates, location, date, format and category, phone number, tags, and comments.

If user likes the event, can add users calendar and gets information about count down to the start date. Users also rate the event out of ten and add comment but comments will be checked before published, if curse detector finds any curse word user will be blocked by admin. Also admin will be check the comment about racism, offensive or any insult.

1.3 Stakeholders

Different stakeholders in this developed software are project developers, software users and API providers, where data information of events is obtained. Project developers identified the problem at the first stage of the project. The solution of the resulting problem has been determined. The resulting solution and the problem are clearly and clearly stated. Then, the project was designed and the implementation phase of the project was started. Finally, a user-friendly interface is designed. Project developers; They were influenced by the stages of observing the problem, communicating with potential users in the process of developing a solution, designing software to meet the needs, developing an algorithm in the implementation section, communicating with each other, and brainstorming the use of the interface.

Thanks to the software developed, users have benefited from the convenience of reaching the desired event on a single platform and shortened their time to conduct an event research. With the advice and advantages of the software, they had the opportunity to comfortably participate in events of their interest. The API provider has provided its own advertisement and announced itself name.

1.4 Motivation for the Project

To develop such a system that would not only ease the burden on the users, but the admin itself. Our team has an immense amount of knowledge when it comes to problem solving, programming, and communication. We strive to give user friendly event service everything they desired. Each team member has participated in this project even this projects every steps has handled together on online meetings.

1.5 Process Flow Preview

Process flow of our project started with thinking about general structure needed. We discussed the requirements by putting ourselves in user's shoes and took some notes for the proper ideas helps us the construct the structure. We made diagrams and models for the structure thus we aimed to not to fail in the future parts and start everything over again. This allows us to handle with the issues easily. Tasks are composed and shared, online meetings are scheduled, all the coding part of the project has been completed on online as group.

2. Analysis and Design

2.1 Plan for Requirements Engineering

Inception Task:

The developed software does not contain any commercial concerns. It has been developed in order to provide the user audience with the opportunity to access event information quickly and easily and to direct the user to their interests. The only commercial interest in the software may be the indirect gain of the provider by announcing the API provider website. In line with the stated purpose, each team member initially presented different perspectives, considering their own experience and experience, to bring a comprehensive solution to the problem. Team members had the opportunity to communicate and observe directly with the user base. This opportunity was evaluated to gain a basic understanding of the project, and several questions were identified and asked both by potential users and by project team members.

-What are the basic functions? (What do you want software to do? - What tasks/problems is the software supposed to accomplish?)

- What the software should be able to do?

- What kind of users are we targetting?

- On which platform will the software be developed? (On which platform would you like to use the software?)

- What problems can be encountered during the development phase of the project? - What factors can prevent the implementation phase?

- Are there any other people that you suggest that we ask these questions?

- Is there anything else you would like to add?

Elicitation Task:

The aim at this stage is to define the problem, to offer solutions and to talk about different approaches according to the answers obtained. Meetings with one of the stakeholder team members are planned to reveal more concrete data. The plan is to get a good idea of what the software's goals are, what to do, and how the overall system fits the job the user is looking for and interested in. Generally, in these meetings, different suggestion lists were created to determine who the API provider stakeholder would be. In addition, the technical environment was determined and the technical environment was explained, user usage scenarios and a list of requirements are currently created.

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Elaboration Task:

The information collected from the inception and elicitation stages are combined and refined in this section. A draft model has been designed that clearly shows the possible conditions of software functionality and behavior. It was planned how the users will interact with the application interface, how the project developers will interact with the software, in which cases developers should intervene in the software. Scenarios were created to help understand and improve the software. How each feature and each function interacts was defined.

Negotiation Task:

In order to develop effective solutions to the problems that need to be solved, team members were offered the solution suggestions created at the meetings. Solution suggestions to find the most effective solution were discussed. The requirements asked and specified by the stakeholders were listed in order of importance, priorities were determined. In order for the stakeholders to save time, the best solutions were determined both to enable the users to use the application effectively and to save project developers. Suggestions with a minimum order of importance and contribution to the software were ignored for savings.

Specification Task:

During this task, a template was created to indicate the requirements of this software. In this template, after specifying the general purpose of the project and the target audience, the features that the software will have, features that will be give to the user have been adjusted. Explanations about the working environment and design are included in the template. In addition, encryption of the user's account, quality features and which interfaces to use with this software are included in the template as security requirements to ensure the security of the user's personal data.

Validation Task:

In this task, the specified requirements are clearly defined. All resources to be used in project planning have been identified. Planned stakeholders have been brought into concrete form and proved legitimate and usable (for API). What the inputs will be and the tasks they will perform are well defined. It is ensured that all requirements are suitable for general purposes and easily understood. Hard-to-understand phrases, such as the source of data that the software will use during the event recommendation, have been rewritten and discussed again with team members.

Requirements Management:

The possible changes that may occur during the project phases were discussed openly and carefully. It was decided that the project will be assumed necessary during the construction phase, changes will be allowed in any situation that will contribute to the project and will not cause any problems for the stakeholders. Requirements Management was constantly renewed throughout the project process, and changed as necessary.

2.2 Functional Requirements

Hardware Requirements:

The software should be ran on any sort of desktop or laptop environment. Essential input/output devices are keyboards, mouse; nothing else is required but can be recommended if desired.

Website Interface - Primary Tasks:

- View all available events
    - Connects with the API through Java to call all event objects and display them accordingly

Application Interface – Primary Tasks:

- Search for desired event by events name, city, and any tag
    - A search bar will be implemented on the app that will search the data based on the input filters
- Select their desired event, add it to the calendar, add comment and rate to the event
    - Buttons will be displayed on the event previews that will allow for the selection
- Add desired event to the calendar, add comment and rate
    - When the user selects the event, new frame will be opened and events details will be displayed. 4 buttons will be displayed under the event , “Add calendar” button that will add the event into the users calendar, “Comment” button that will allow to add comment in to the events page but all comments will be checked before displayed, ”Rate” button will be allow to rate out of ten, “Go back” button allow the change the page to the users main page.

- Allow for sign up
    - Sign up display form
- Allow the customer to log in
    - log in display form

Application Interface –Secondary Tasks:

- Allow the user for display notifications
    - Only for users who add any event to the calendar, there were be a "Notifications" button on the users main page that shows all countdowns for events which has added to the calendar by user.
    - Also when user adds any event to the calendar, AI system finds related events which are in the same city or same tag with the users registered events. After countdowns, related events as a buttons and "go back" button displayed in new frame.

- Allow the user for display calendar
    - User can display events as a button which are supplemented from themselves to the calendar.
- Authenticate any user logging in
    - communicates with the json file to verify the inputted username and password is correct
- Updates available in profile settings page for any user
    - communicates with the json file and changes name, surname, phone number or e-mail address like desired.

Company-side Software - Primary Tasks:

- Allow administrators to block users which are use curse word or any disturbing content in their comment and delete comments
    - Administrators will log in through the log in display form such as users would, but would have a different looking interface which is admin page to allow for them to sow comments and get notifications.
    - “Get notification” button will be displayed in admin-page, when AI system catches any curse word it will store the comment and users nickname. When admin clicks that button users nickname will be shown as a button in new frame with “go back” button which has same function with other “go back” buttons. When admin clicks to the users name users nickname and comment will be shown after that admin can click to the “block user” button which blocks the user or use the “go back” button if there is some misunderstanding. Blocked user can’t log in again to the system and whenever tries to log in to the system they will get message.
    - “Show Comments” button shows the all comments as a button so admin can decompose them and if observes any disturbing comment such as racist, disturbing, bullying, sexist, harassing comments, blocks the user.

Company-side Software - Secondary Tasks:

- Track events information
    - Displays and updates events information
- Keep and display events comments, rates and users information
    - When re-open the app, all data won't be disappear.

2.3 Non Functional Requirements

Performance Requirements: -Application should be available at any time -Quick responces should be given from the system -Being logged in should allow for customers to quickly find the event searched for -Display accurately and efficiently on any sort of desktop or laptop environment Security Requirements: -Prevent false phone number while signing up Quality Attributes: -An user friendly interface -Easy to use, adaptable -Searching in events is accessible to users -Customizable calendars for the users -Maintain readable content.

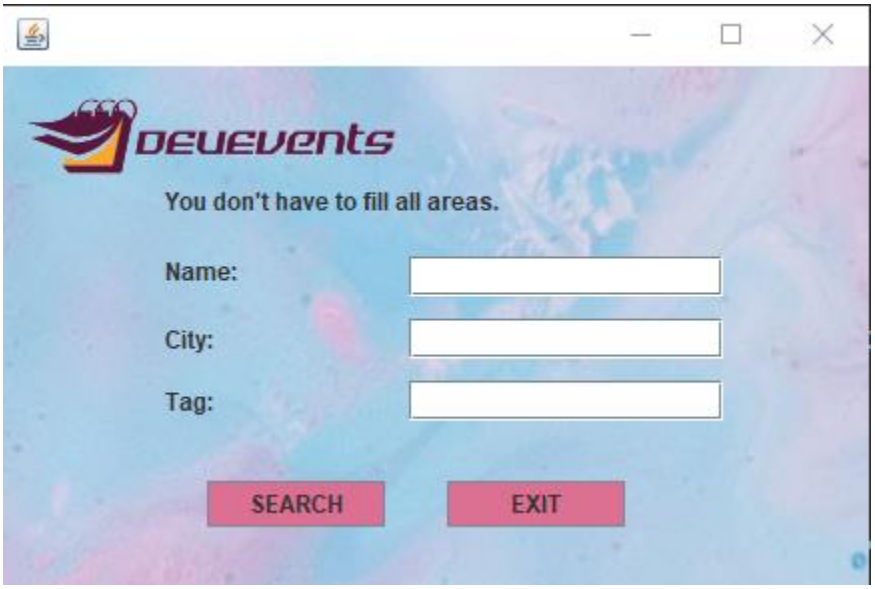
Screenshot Mockups:

Main Page

Admins page

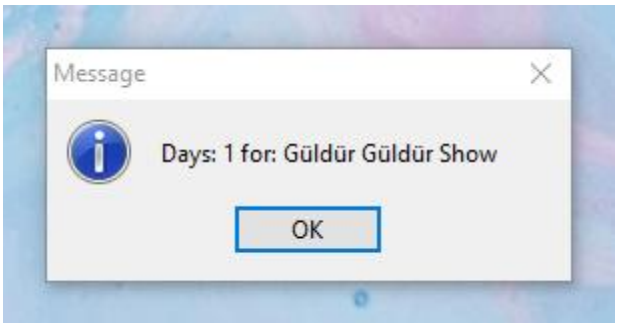
Users page

Search operations page



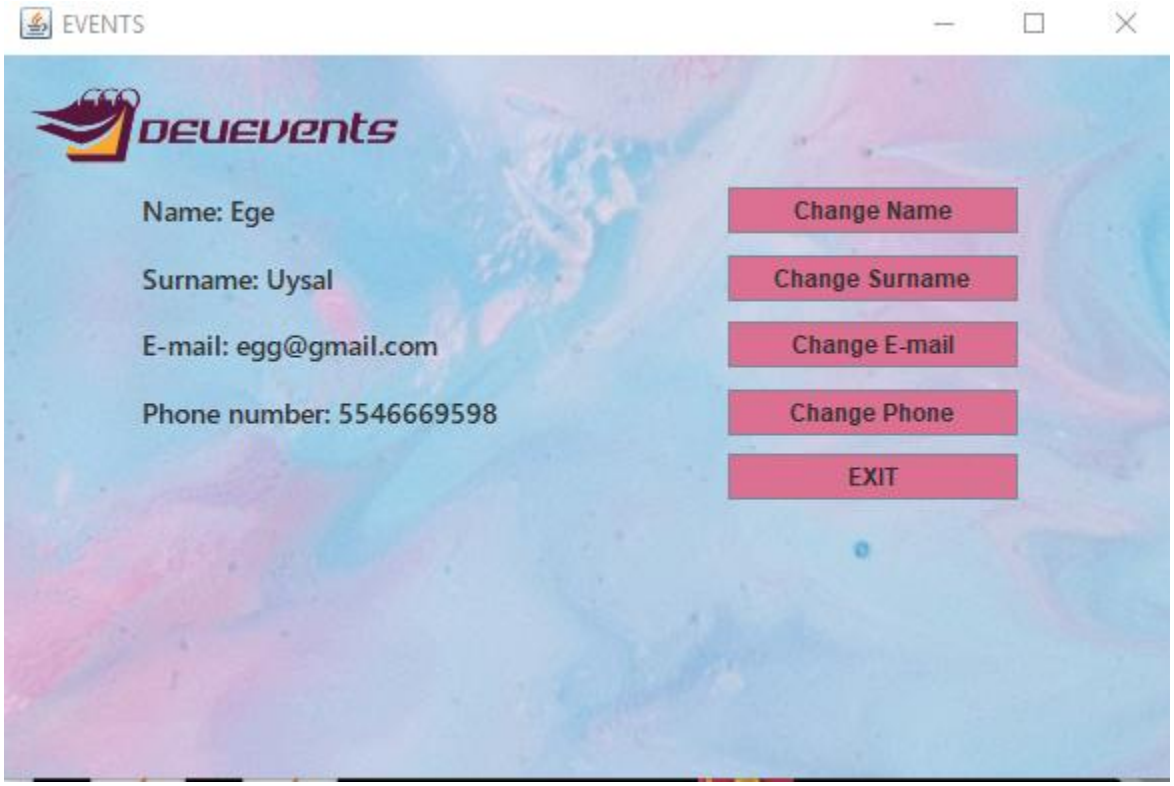
Display all events page

Notifications – Countdown page



Notifications – Sugestted events page

Profile Settings page



Events Page


EVENTS
deuevents
90'lar Kafası: Nihat Sırdar
URL: https://etkinlik.io/etkinlik/139318/90-lar-kafasi-nihat-sirdar
90'ların müziği ve eğlencesi Nihat Sırdar'la Jolly Joker Kartal İstMarina'da...
90'lı yılların en sevilen ve ezbere bildiğiniz şarkılarını bağıra çağıra söyleyeceğiniz, o yılların
Bistro
* Bistro kategori,sahneyi gören en uygun yerden bistro imkanı sunulan alanı kapsar.
* Bistro bilet sahiplerinin 0549 494 20 20 numaralı telefonu arayarak, rezervasyon yaptırmaları zor
* Bistro bilet sahiplerine minimum 2 kişi olması şartı ile bistro imkanı sunulmaktadır.
* 18 yaş sınırı vardır.
Loca
* Loca bilet sahiplerinin 0549 688 80 80 numaralı telefonu arayarak, rezervasyon yaptırmaları zorun
* Bilet fiyatına ikramlar dahildir, ikram detayları için 0549 688 80 80 numaralı telefonu arayarak
* 18 yaş sınırı vardır.
Ayakta
* Loca,Bistro kategori dışında konserin ayakta izlenebileceği alanları kapsar.
* 18 yaş sınırı vardır.
Rate: 0.0 0 people has rated
Location: "Jolly Joker Kartal İstMarina", about: "Türkiye'nin en fazla konser yapan ve en fazla seyirciyi ağırlayan zincir mekanların
Date: 29/05/2020, time: 22:00/29/05/2020, time: 23:45
Format: Konser Category: Pop Müzik
Phone Number: nullnull
Tags: #"Pop Müzik"
Comments:
Add Calendar
Comment
Rate
Exit

2.4 Use Cases

Use Case #1: *Log-in*

Primary Actor: User/Admin

Goal in Context: if the user exist in the system logs in otherwise has to sign up.

Preconditions: User has signed up before and User has to assign nickname and password correctly.

Trigger: User must to remember password and nickname.

Scenerio:

1. User or admin enters nickname and password.
2. System checks the authenticities of the password and nickname.
3. If nickname and password are incorrect user can re-enter them or sign-up easily.
4. System must identify of the whom has logged in.
5. If admin logs in admin page will be shown, otherwise user page will be shown.

Exceptions:

1. DEU Event service Username/Password incorrect: User is sent to main page to re-enter credentials
2. User is not in the system: User is sent to main page to sign up.

Priority: Essential, must be implemented

When available: the system opens

Frequency of use: Every time, user opens the app

Channel to actor: DEU Event Application

Secondary Actors: User Service

Channels to Secondary Actors:

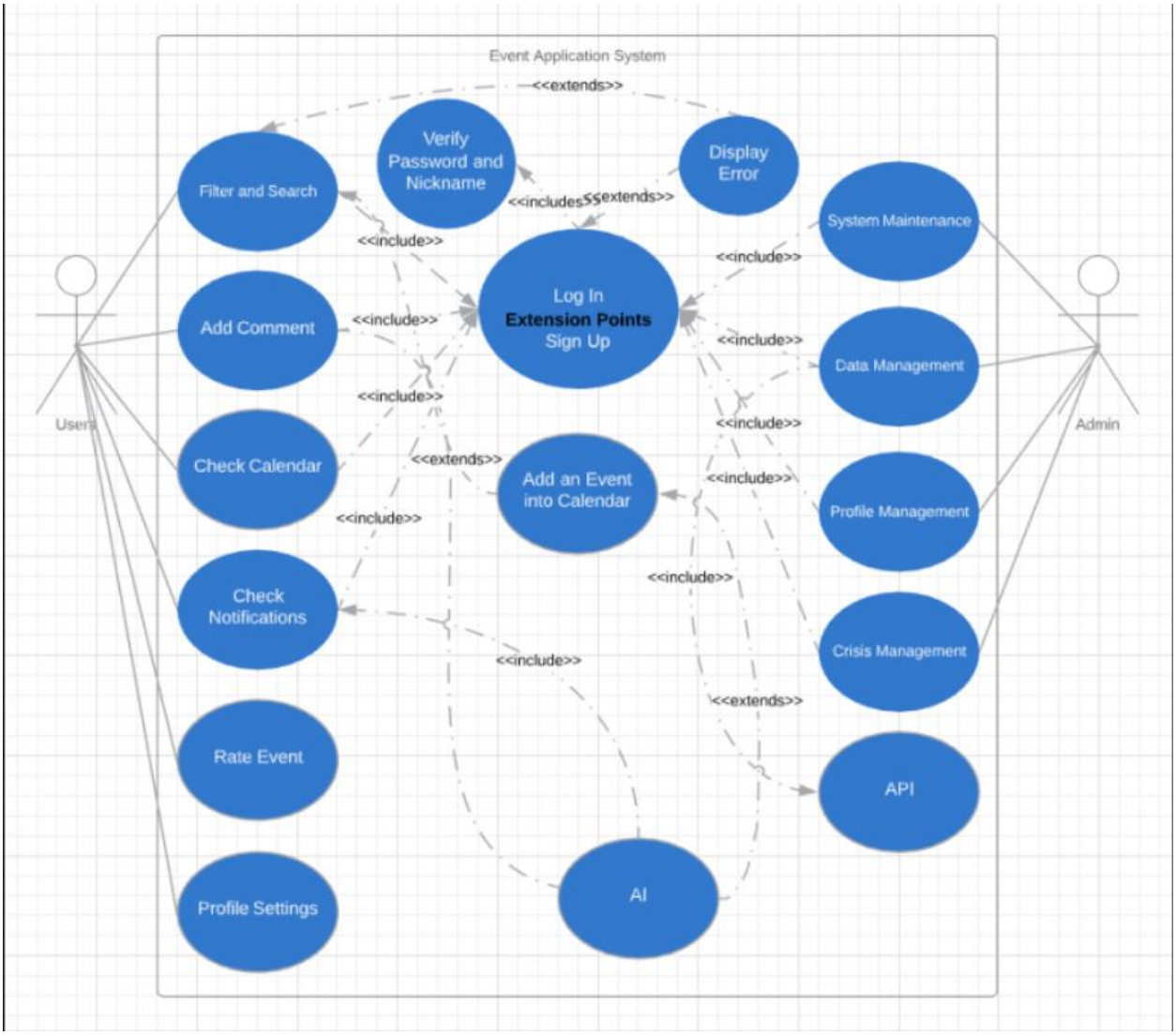
1. User Service: Phone line

Open Issues:

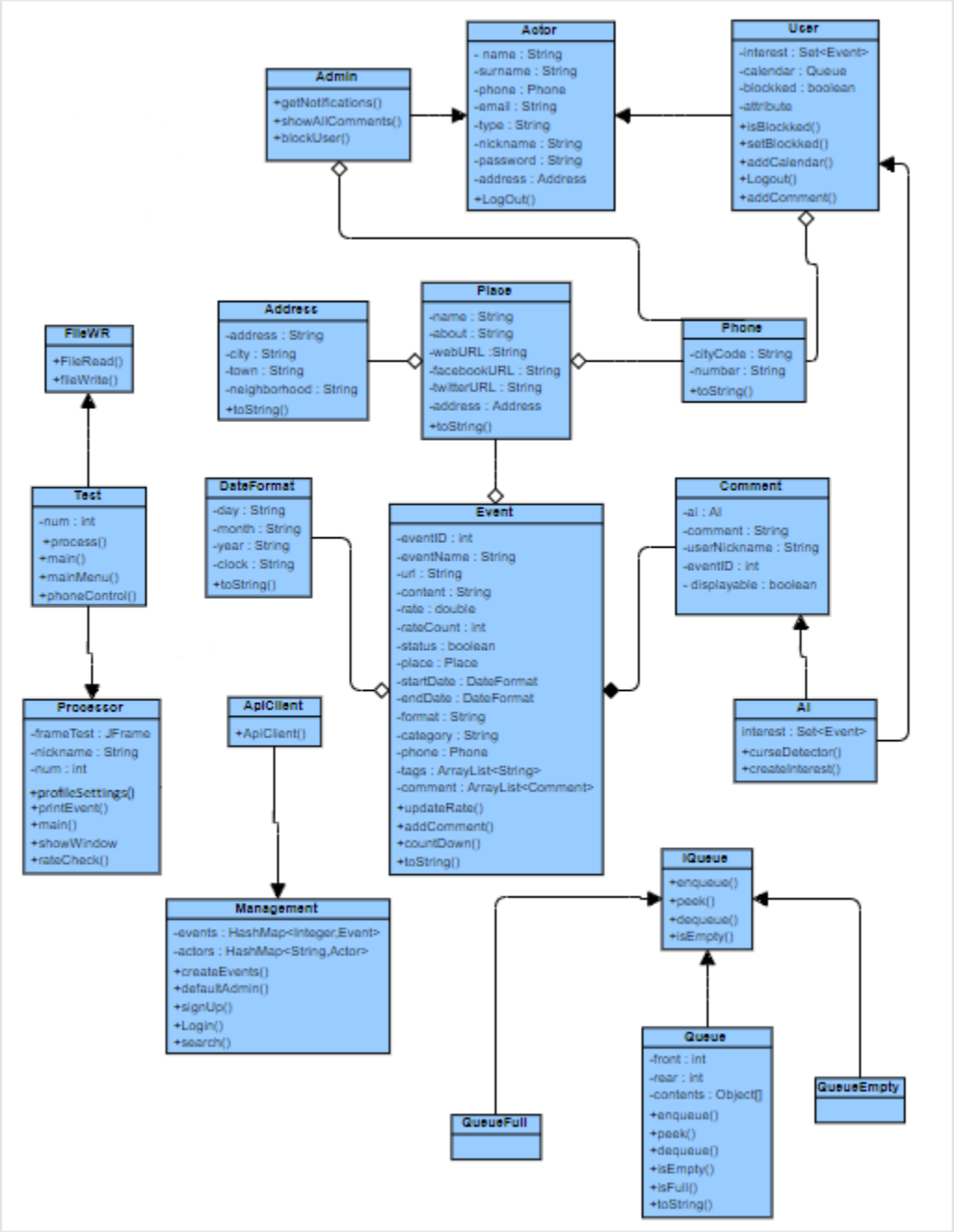
1. Should DEU event verify the email or phone number at every time user logs in?
2. How many times user can enter the wrong password?

2.5 Models

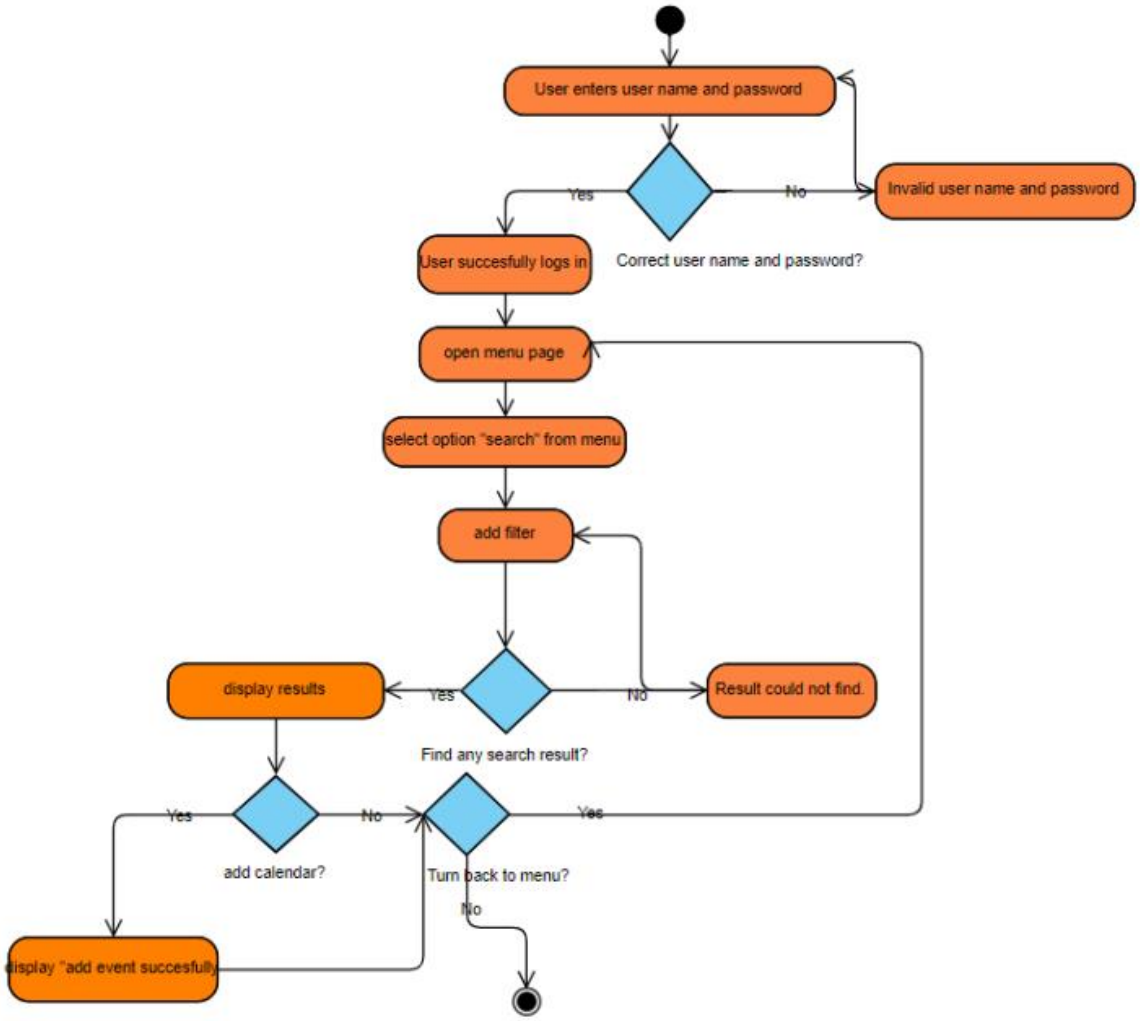
USE-CASE DIAGRAM



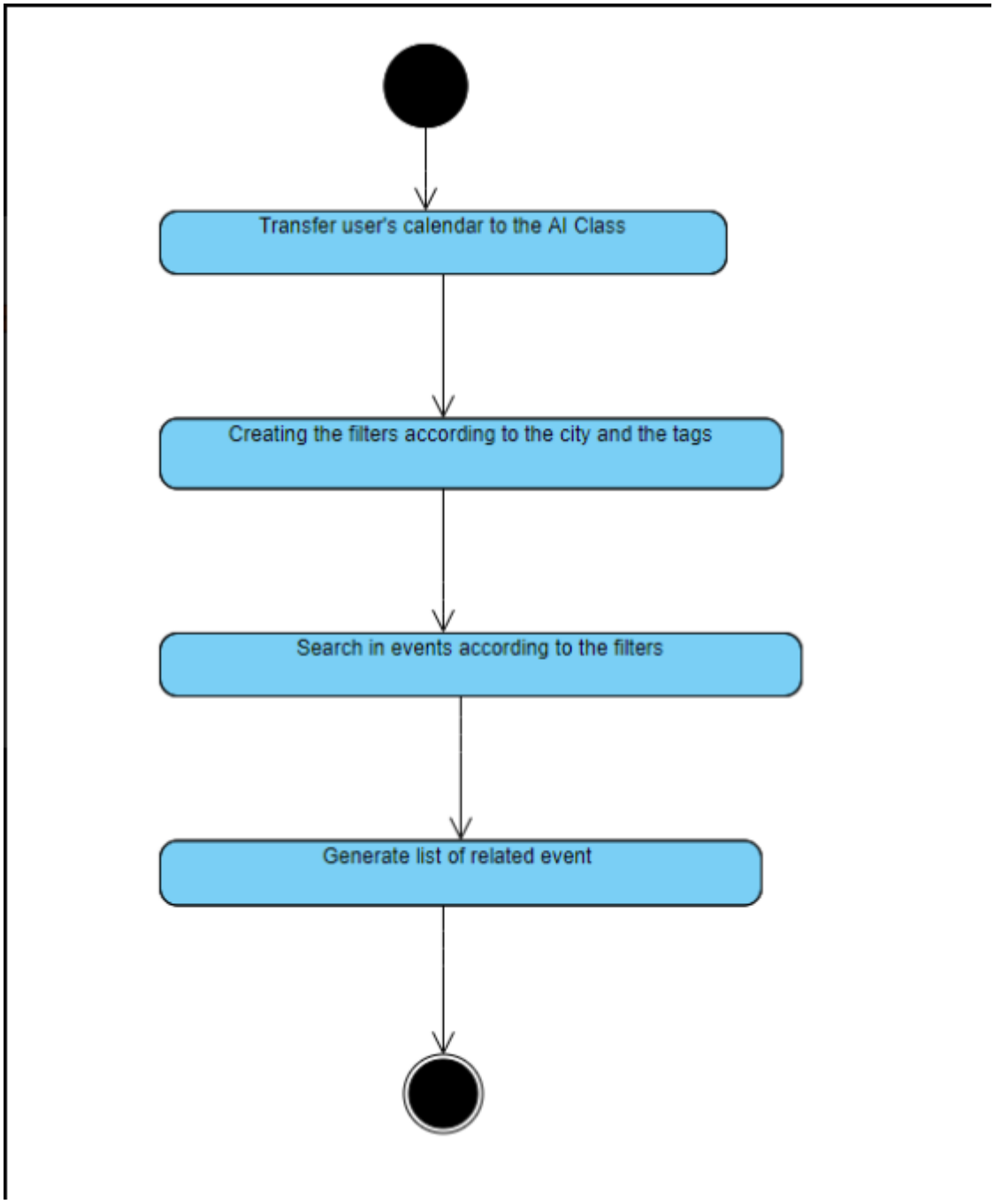
CLASS DIAGRAM



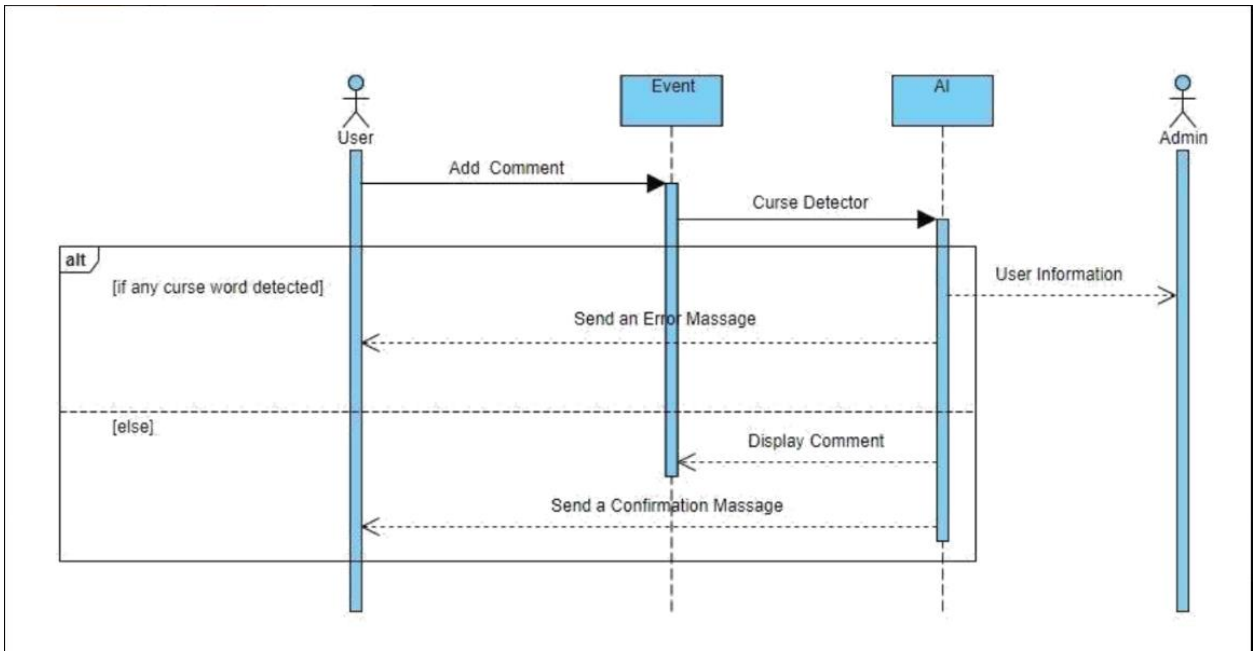
ACTIVITY DIAGRAM



STATE DIAGRAM



SEQUENCE DIAGRAM



3. Project Plan

3.1 Task Descriptions

Stakeholder Meetings

After the project was designed, a meeting was not held again with potential users. The next process continued with the project development team. The meetings held in the first three weeks of the project in the form of face-to-face meetings then continued through the online platform.

Design Models and Mockups

In the meetings, class structures that will direct the implementation phase of the project were created and reported. The content of Class buildings was planned. Class structures' relationships with each other were schematized with use case diagram, class diagram, activity diagram, sequence diagram and state diagrams.

Database Creation

- To store the user information in the software, the registration of the job was made to the json file. All information was stored in the json file.
- Event information obtained via API was stored in the hashmap structure.
- The activities to be suggested to the user were stored in the queue structure.
- User's interests were stored in the Set structure.

Employee Software Creation

The diagrams, which are designed as design models and described in the "design models and mockups" section that will guide the implementation phase of the software, were created using Visual Basic. Team members can intervene in the software when necessary, with the entry of "Admin" in the project. With the admin login, team members can see all comments made about the events. It can remove user comments from the system that are objectionable to publish, and block the user when necessary.

Testing

- Membership of the user can be checked as the first test operation. It was checked whether the username and password entered by the user during the Sign Up process are the same as the username and passwords previously saved in the json file.

  - The second control during the login process was that the user was whether blocked by admin. Even if the user name and password are similar to those kept in the json file, the blocked user cannot log in to the system.

  -Users who are not pre-registered must register to the system with the sign up process.

  Checks performed during the log-in process:

- The desired username is whether registered in the system.
- While registering to the system, it was checked if the phone number was entered correctly.
- The filtering properties of the search were checked in the search process it made after the user entered the system.

Finalization and Reports

- The project was documented with an interim report during all stages. All function and test processes were completed at the conclusion stage. After getting the desired output, a report was created explaining both the design process and functionality of the software.

3.2 Task Assignment

Assignments were distributed evenly among the group assigned to the project. All three worked together in the project planning, design models, code phase and analyzing all specifications.

We had all participated in every parts of the this project. Our interest might be different about it. Can was interested in API and data management and store the data in json file. Ece was interested in system management and AI operations. Burcu was interested in crisis management and GUI operations.

All team members have tested the project. Reports were created throughout the process by all three group members and gathered to accurately and sufficiently create this final report.

3.3 Deliverables and Milestones

We had four major Milestones in this project:

1. Determining of the Requirements .

2. Completion of code.

3. Completion of interface design.

4. Completion of testing

3.4 Project Schedule

The first month of the project start date (February) was used mainly for research about projects solutions, understanding the problem and getting answers about all questions, observation and information gathering, requirements setting. This took about 6 days. At the last days of March, we were able to begin designing and create use case, class, activity, sequence and state diagrams which took 7 days. After that we changed some diagrams due to our lectures. We have wrote pre reports. At April we started to coding phase. Our online meetings were enough and we completed all together. After designed some necessary classes and interfaces, We decided to make some changes and started to code Queue data structure to enrich our project. Then we completed the project and it took one month. Then we started to design GUI interface. It took about one and half week. Then we wrote out the user manual, and gave a final report of the software. This total time was about three and half months.

We then had a minor period for final adjustments which totaled 2 days. We finished the project in the end of May. The percentage breakdown was as follows:

Requirements: 6 days-8%

Design and code: 40 days-54.79%

Testing: 10 days-13%

Manual and Final Report: 4 days-5%

Demonstration and Adjustments: 2 days-2.73%

Changes in requirements: 3 days-4%

Design of GUI interface: 12 days-16.5%

Total: 73 days (3.5 months) - 100%

4. Testing

4.1 Features to be tested

We used both static and dynamic testing strategies. Static strategies do include testing the basic methods for the application while coding, on the other hand dynamic testing is based on the whole code execution.

The featured we tested were as follows:

- Checking the correctness of each method (Static)
- Testing the API values whether they are true (Static)
- Controlling the visual of the user interface after each step (Static)
- To be sure that the applications run itself (Dynamic)
- To be sure that the user interface works properly (Dynamic)

4.2 Test Cases

The following are examples of test cases we implemented:

- All fields on page (e.g. labels, buttons) should be placed properly
- Graphical User Interface
- All the texts on the buttons, labels etc. should be fit in.
- The transmission between frames.
- Keeping the data in a JSON file and execution of it correctly.

4.3 Testing Schedule

The testing should begin right after the project itself begins. Keeping up on testing will ensure that any mistakes are caught early and corrected immediately.

We have tested every part after we code it. End of the projects we determined some more test and tested again.

5. Conclusion

5.1 The Problem and Solution

The problem is DEUEvents is an application which is up for grabs and gives an opportunity to users to submit comments about the application. Due to we want the application to be sophisticated and beneficial, we do not want any comment that has curse words in it. Also the content shold not contain any sexism, bully, discrimination, hate etc. For this reason we came up with a solution that includes to add an Admin and AI to the system. AI checks the curse words after each attempt automaticly. Admin checks the other comments whether there is anything wrong or not which is AI not able to determine.

5.2 The Team and the SE Process

The Software Engineering process we used was the incremental process method. In this method, we built a simple working system implemented only a few basic features. Then many successive versions are implemented. We tried to minimize the risk of errors. We were all be able to work and test during the concept development, system development, system enhancement, and system maintenance phases of development.

5.3 Engagement of Umbrella Activities

Four of the main Umbrella activities we used were as follows:

1. Software Project Management – GitHub was used to lead the project and to ensure that the project was controlled, monitored and planned, and Eclipse IDE environment was used for the implementation and development phase of the project.
2. Formal technical Reviews – After the implementation phase, the software developed was tried by other software developers. It has been confirmed by peers that it has the aforementioned features and that the software is suitable for its purpose.
3. Reusability Management – For the future of this project created by the software team, the idea of merging it with a previously developed travel guide software was created. Thus,to the user will be provided with benefits such as more flexible and comprehensive searches and saving time on a single platform.
4. Risk Management - Permission has been obtained from the provider for the API. Thus, unauthorized data problem was eliminated. The possibility of API not being able to provide data was considered as a risk.

5.4 The Stakeholders that Benefited

After release of the product, all of our active stakeholders benefited from the software. This software was the advertising source for the API provider company. The company indirectly had the opportunity to gain commercial interests. With this software developed for them, users had the opportunity to follow the activities they missed before. Users increased their general culture and broadened their vision by spending more time on their interests. Software developers; They developed their soft and technical skills such as communication, teamwork and coding. The contributions provided by the software are not limited to these. Many different sectors such as venue owners, scientists and artists performing the events, venue workers benefited from the increased mobility of the activity areas.

5.5 The Organization's Benefits

We benefitted greatly from the production of this software. We had the opportunity to improve our skills such as we learnt how to design helpful diagrams like use case, class, activity, sequence, state and how to work as a team at online, Moreover, learnt how to use some useful data structures like queue and experienced abstract class and interface usages. In addition, we learnt how to get real data by using API.

6. User Manual

6.1 Software Description

The application has to run from the Test class, The application will allow for users to view events currently available either by filtering them or all. Users have to sign up to the system unless they do have an account.At this part just a few information should be given to system but these informations can not be seen by anybody even the admin. Users have to be logged in to have benefit from the system. The company employees which this software will be served are going to be an admin to be able to do all administrition works if necessary such as displaying all the comments, deleting an improper comment, blocking an user. They do get notification when AI catches any improper language. This help them to take immediate and real-time actions.

6.2 How to Use the Software

The desktop application designed for the users should see the main page upon open the application. There they can see the log-in and sign-up buttons, all the users have to sign up to use the system, if they have an unblocked account they can log-in, if they don't they can sign-up easily. After log-in or sign up operation, new page which has all features will be opened . User can search easily with improved filters, display all events available. When clicks to the event new page will be opened about event and user can find detailed information which are url to get ticket, content, rate, location, start and end dates, format, category, phone number, tags and comments which are added from other users. In that page, user can add event to the calendar, add comment to the event or rate it.

If the user added an event to the calendar, can see notifications which are countdowns for events on their calendar and suggested events which has chosen from users events from the calendar by the system. User can display calendar from the main page. Profile settings part is helps the user to the change their personal information such as phone number, email, etc.

6.3 Troubleshooting Common Problems

The Login/Sign Up Page

Problem: Invalid Login

- The credentials used to log in was not found in the database, input the credentials again in case of mistype.
- Make sure you remember your password and username correctly.
- Make sure you enter your password and username correctly.
- Make sure you are not blocked by admin.

Problem: Invalid Sign Up

- You cannot register with a username already registered in the system. Try a different username.
- Enter your phone number completely. Correct it if you entered wrong.

The Software

Problem: The requested event was not found.

- If the event you are looking for has expired, the event may not be found.
- You have entered the activity you are looking for correctly in terms of name, city and tag.

  be sure. Correct it if you entered wrong.
- There may not be an activity that suitable the criteria you are looking for.

Problem: Notification section does not offer me any events.

- If you have not added any events to your calendar, the software cannot advise you.
- Make sure to add events to your calendar. Add an event if you haven't added it.

Problem: I can't access countdown information.

- If you have not added any events to your calendar, countdown information cannot be given to you.
- Clear your browser’s cache and re-launch the browser.

Problem: Invalid Login

- The credentials used to log in was not found in the database, input the credentials again in case of mistype
- If invalid login persists, pursue the lost password option to obtain a new password. If error ‘email not registered’ Please attempt to register instead with the email.

Problem: Page Not Found

- Make sure you have entered the URL correctly.
- If the URL is correct, contact the company through telephone or email to report the missing link.

The Software

Problem: Customer requests for vehicles are being delayed by a significant amount

- Make sure the internet is working properly, most of the time the case is the internet connection either used by the company or the customer themselves.
- If the problem persists, contact someone of higher authority who can verify if the server is having down time issues. It may need to be waited out before the problem can continue. Emails will be automatically sent to customers within 15 minutes of the initial rental request about the delay if an employee does not respond to it in time.

Problem: Customer/Vehicle Not Found

- Upon searching through the software, this means that the customer or vehicle is not currently in the database or may have been removed. Review recent changes to the database by the company to see if any changes had occurred.
- Contact someone of higher status to verify that the customer or vehicle is not in the database if you suspect they should be when no recent changes come up.