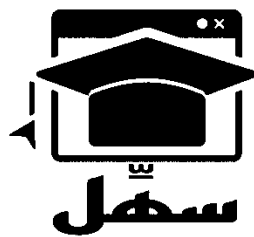


Teaching and Delivery Application



Team members:

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Introduction

1- What is the idea of research?

It is an application that brings together the number of teachers so that it helps students to get private lessons easily and comfortably from their homes through an interactive platform, The application collects a number of drivers so that it saves students to search for a private driver, and the guardian can communicate with driver and all these advantages to facilitate the student and provide comfort and safety for parents.

2- What are the main sources of research idea?

A sample of students at Umm Al-Qura University this problem.

3- What kind of problem will this research solve?

- Simplify the way of searching about teachers and drivers for provide services.
- Students learn easily and comfortably from home, so there is no need for parent's supervision.

4- How do you collect information about your project?

- The drivers form telegram group "UQU للباصات والسواقين".
- From social media ads.

5- How are you going to develop your research idea?

By using NetBeans because its Free, support java and collection of libraries, easy to use, there are many tutorials on youtube.
Also, using Android studio.

Glossary

Functional requirement	Statements of services the system should provide, how the system should react to particular inputs and how the system should behave in particular situations.
Non-Functional requirement	Constraints on the services or functions offered by the system such as timing constraints, constraints on the development process, standards, etc.
User requirement	Statements in natural language plus diagrams of the services the system provides and its operational constraints. Written for customers.
System requirement	A structured document setting out detailed descriptions of the system's functions, services and operational constraints. Defines what should be implemented so may be part of a contract between client and contractor.
Use case diagram	Use case diagrams, which show the interactions between a system and its environment.
Scenarios	Scenarios are real-life examples of how a system can be used.
UML activity diagram	Activity diagrams, which show the activities involved in a process or in data processing.
Prototype	A prototype is an initial version of a system used to demonstrate concepts and try out design options.

Analysis phase

Functional requirements

❖ User requirement:

1. The customer, the teacher and the driver can register in the application for create an account.

❖ System requirement:

- 1.1. The customer, the teacher and the driver choose the registration and enter their information.
- 1.2. The system will display message error if the email or username entered is already registered.
- 1.3. After the user add their information's such as (full name, password, age) the system will save the record account of them.
- 1.5. The system will send confirmation message.
- 1.6. The system then allows the customer, the teacher and the diver to use the application.

❖ **User requirement:**

2. The teacher and the driver can use the application by their account's.

❖ **System requirement:**

2.1. The system allows teacher and driver to sign in by their email and password.

2.2. The system checks email and password from the database.

2.3. The system open home page only if the email and password are present in the database.

2.4. The system will send error message if the email and password are not present in the database.

❖ **User requirement:**

3. The teacher gives lessons to the customer.

❖ **System requirement:**

3.1. The system allows the teacher sign in.

3.2. The system allows the teacher choose the education grade and then choose the courses to be explained.

3.3. The system allows the teacher give online lesson by starting session contain session name, a short description, and the teacher choose the day and the time of the session.

3.4. The system allows the teacher upload recorded lesson contain record name, and a short description.

3.5. The system saves uploading record in the database.

3.6. The system allows teacher to check the record.

3.7. The system will confirm the record uploaded to the database by present a message. If the system could not upload the record error message will be shown.

3.8. The system will delete the record from the database if the teacher deletes it.

❖ **User requirement:**

4. The driver drops of the customer.

❖ **System requirement:**

4.1. The system allows the driver sign in.

4.2. The system allows the driver to add the vehicle information and confirm the completed journey.

❖ **User requirement:**

5. The customer signs in to access the services available to him.

❖ **System requirement:**

5.1. The system allows the customer signs in using the email and password.

5.2. The system will display message error if the email that entered is already used.

5.3. After the customer finished recording the information's the system will save the record account of them.

5.4. The system allows the customer use the application by start choosing wanted service driver or teacher.

5.5. If the customer chooses the teacher the system allows the customer chooses the grade and subject.

5.6. The customer can choose the driver the system allows and the type of car.

5.7. The system will send confirmation message of order.

❖ **User requirement:**

6. Payment method.

❖ **System requirement:**

6.1. The system allows the customer chooses to pay by using a credit card or pay pal after select service.

6.2. The system initiates payment process using the payment processor to contact bank that handles credit card payments.

6.3. The system prints the bill which contains the pay details and save it in the database.

6.4. The system will send the confirmation message of service.

❖ **User requirement:**

7. The customer can chat with the teacher or the driver.

❖ **System requirement:**

7.1. The system allows the customer communicates with the appropriate teacher and driver.

❖ **User requirement:**

8. The admin can perform an update to the application.

❖ **System requirement:**

8.1. The system allows the admin to solves problems, adds and removes users or functions.

8.2. The system will send update confirmation message if the problem solved.

Non - Functional requirements

1. User response time

1.1 Quick interaction with the user while entering information and when clicking on the icons.

1.2 Quick response to refresh the screen.

2. Security

2.1 The system should have permission to information access control.

2.2 The user information will be secure.

3. Ease of use

3.1. The system will send a notification.

3.2 Simple interface design that is easy for the user to handle.

4. Maintainability

4.1. The system should update the user's information.

5. Reliability

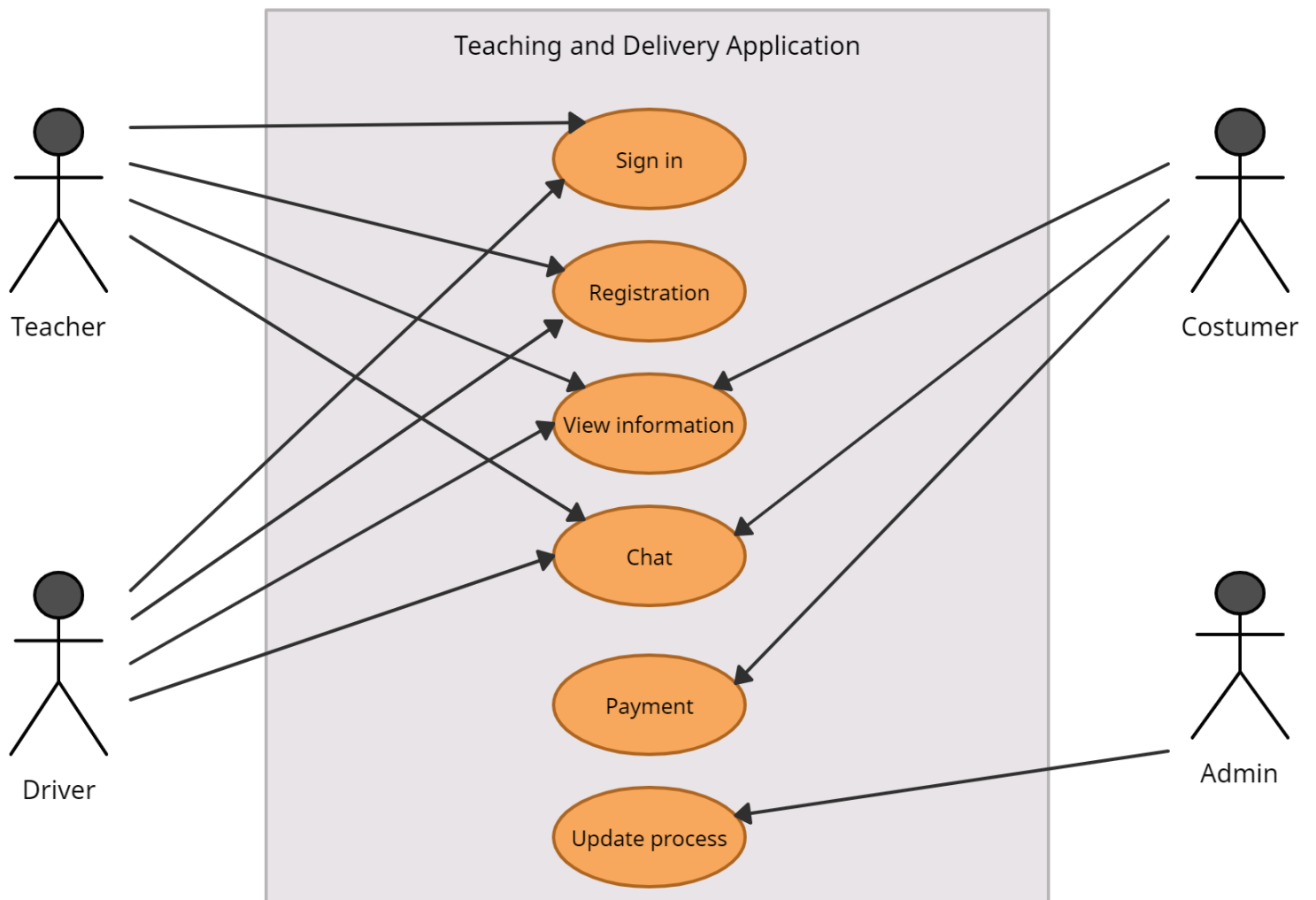
5.1 The system is relied upon when it is available all the time.

5.2 Do not lose user data on restart.

6. Availability

6.1 The system should be available 24 hours per 7 days.

Use case diagram



Scenarios

Table 1: Registering

Use Case Name	Registration.
Principal actor	Teacher, Driver.
Other actors	Admin.
Trigger	To create an account in the application.
Description breakdown	1- Click on the registration button. 2- Add information's in registration page.
Sequence	Sequential, has to happen in order.
Outcomes	Receive Message you have been registered successfully.

Table 2: Teacher

Use Case Name	Sign in for a teacher.
Principal actor	Teacher.
Other actors	Admin.
Trigger	The teacher can communicate with the costumer and give an online lessons or upload recorded lessons.
Description breakdown	<ul style="list-style-type: none"> 1- Sign in. 2- Choose the teacher's option. 3- Choose the education grade and then choose the courses to be explained. 4- Now the teacher information will be shown to the customer.
Sequence	Sequential, has to happen in order.
Outcomes	The Teacher's information is displayed in the designated place.

Table 3: Driver

Use Case Name	Sign in for a driver.
Principal actor	Driver.
Other actors	Admin.
Trigger	The driver can communicate with the customer and deliver them.
Description breakdown	1- Sign in. 2- Choose the driver's option. 3- Include all driver and vehicle information. 4- Now the driver information will be shown to the customer.
Sequence	Sequential, has to happen in order.
Outcomes	The driver's information is displayed in the designated place.

Table 4: Customer

Use Case Name	Customer services.
Principal actor	Customer.
Other actors	Student, Parent.
Trigger	The customer can sign in to access the available services, like choosing the teacher or driver.
Description breakdown	<ol style="list-style-type: none"> 1- The customer sign in. 2- If the customer has not previously selected a service, the available services will appear to him. 3- Choose the wanted service: driver or teacher. 4- If the teacher: chooses the grade and subject and communicates with the appropriate teacher. 5- If the driver: chooses the type of car and then communicates with the appropriate driver. 6- If the customer has previously chosen a service, the selected service will appear in the requests.
Sequence	Sequential, has to happen in order.
Outcomes	Confirmation message that is select service successfully.

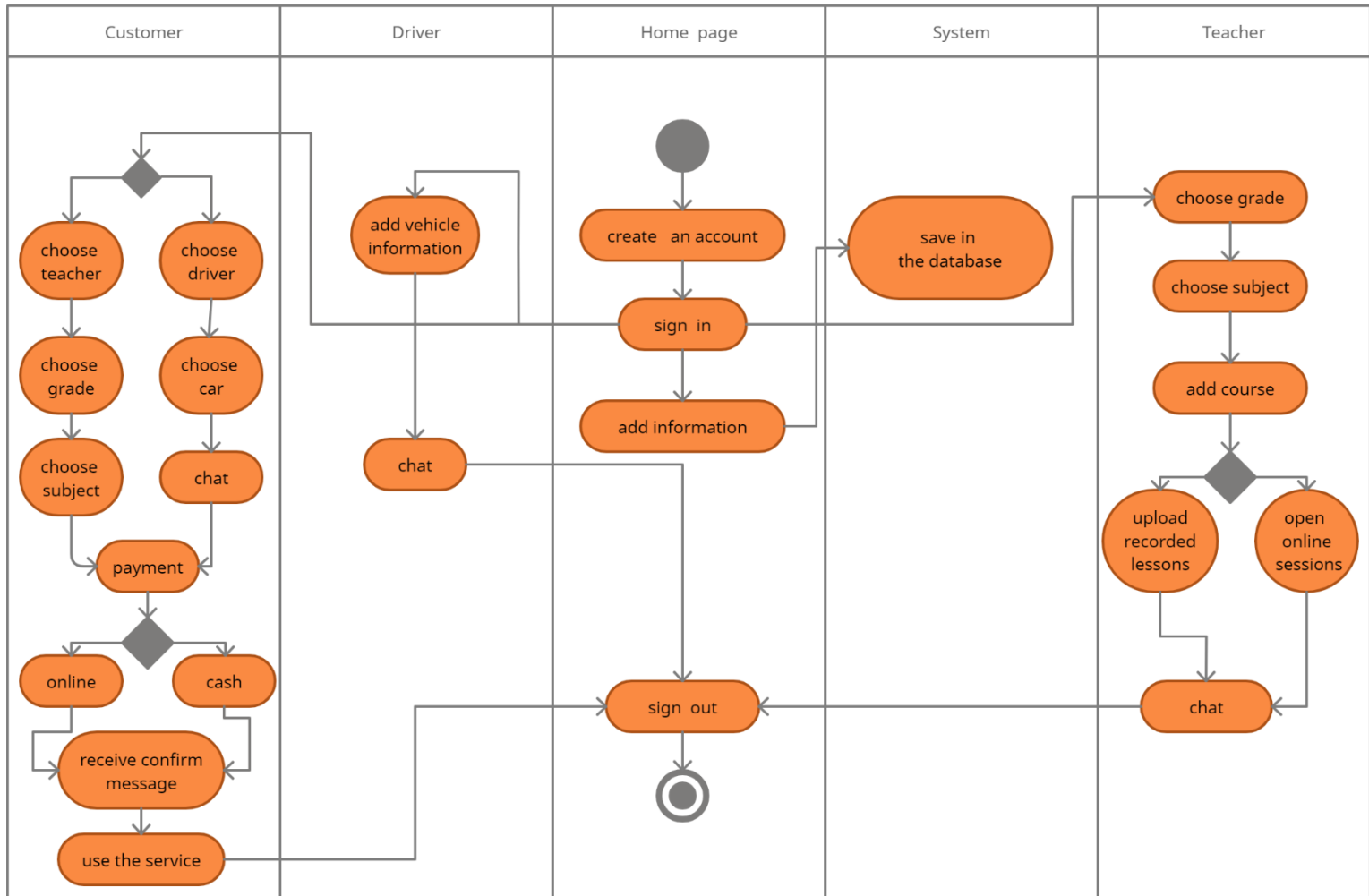
Table 5: Admin

Use Case Name	Admin updating process.
Principal actor	Admin.
Other actors	Engineer, Project Manager.
Trigger	The admin solves problems, adds and removes.
Description breakdown	1- Defining the problem. 2- Present the problem to the engineer. 3- Solve the problem.
Sequence	Sequential, has to happen in order.
Outcomes	System updated confirmation message.

Table 6: Payment

Use Case Name	Payment of subscribe.
Principal actor	Customer.
Other actors	Admin.
Trigger	Customer can benefit from the services, whether education or transportation services.
Description breakdown	<ol style="list-style-type: none"> 1- Customer chooses to pay by using a credit card or pay pal. 2- Initiates payment processing using the payment processor to contact the acquiring bank that handles credit card payments. 3- Payment by pull the money from the bank account. 4- Payment done, print the bill which contains the pay details.
Sequence	Sequential, has to happen in order.
Outcomes	Customer receives confirmation that is subscribe to the service.

UML activity diagram



Design phase

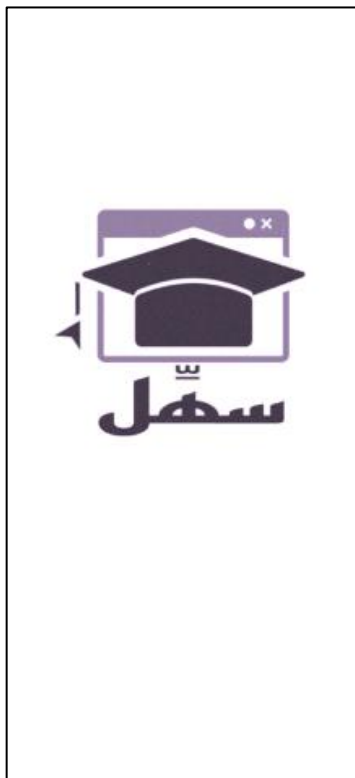
Prototype

What tool did you use? We used Figma to design the prototype.

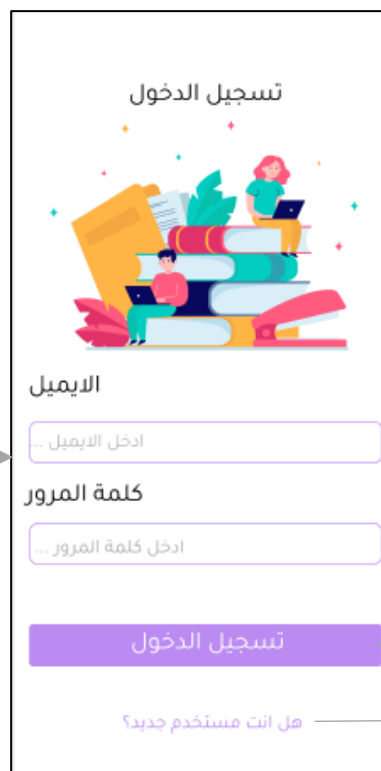
why? Easy to use and there are a lot of tutorials, also we can work on it as a team online.

Screenshot for all the user interfaces:

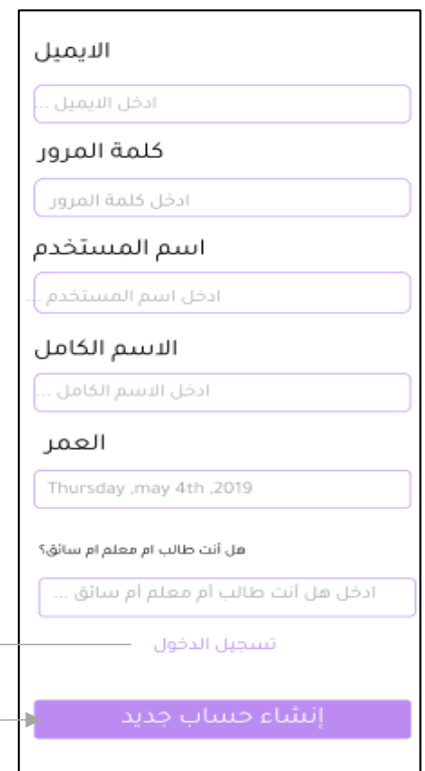
Intro interface



Sign in interface



Registering interface



Categories interface



Side menu interface



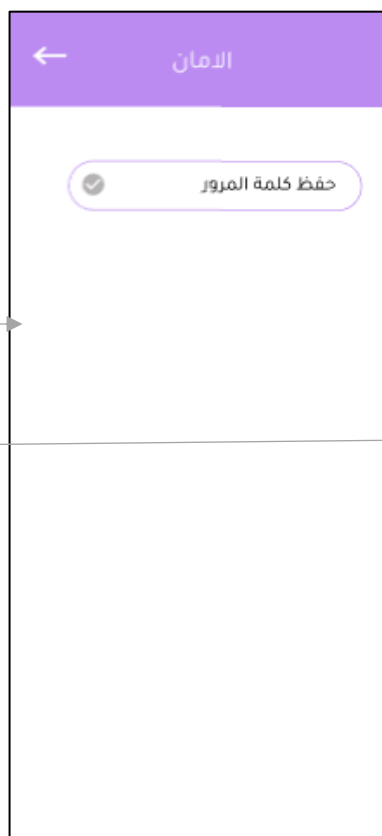
Profile interface



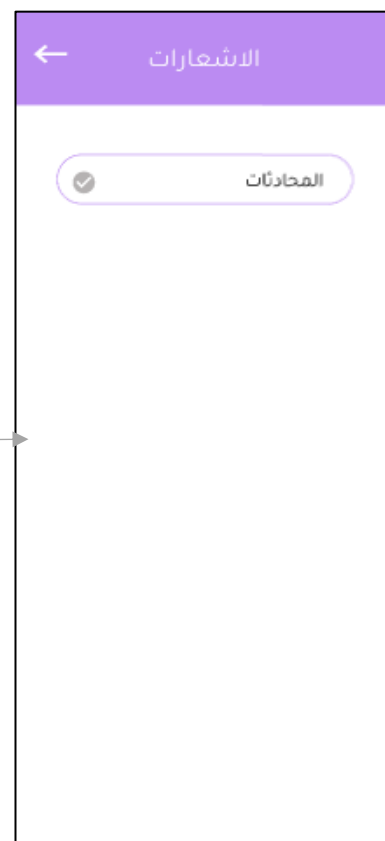
Setting interface



Security interface



Notification interface



Driver categories interface



Driver interface



Driver information interface



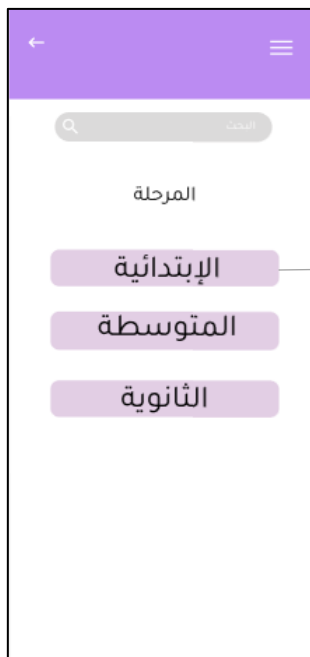
Driver information interface



Chat interface with the driver



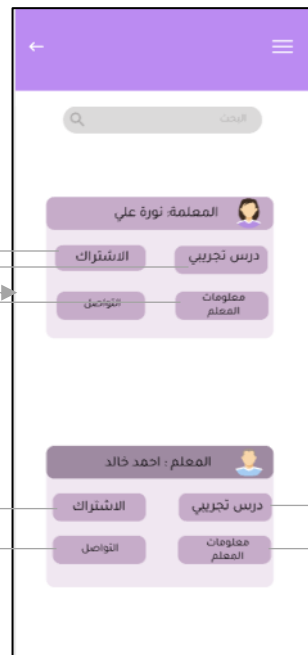
Education grade categories interface



Subject categories interface



Teacher interface



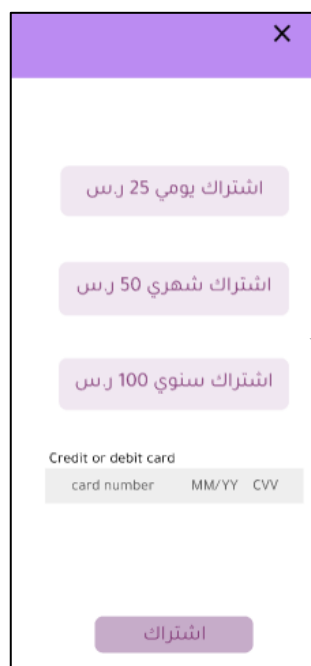
Teacher information interface



Teacher information interface



Subscription interface



Chat interface with the teacher



Uploaded lesson interface



Uploaded lesson interface



Implementation phase

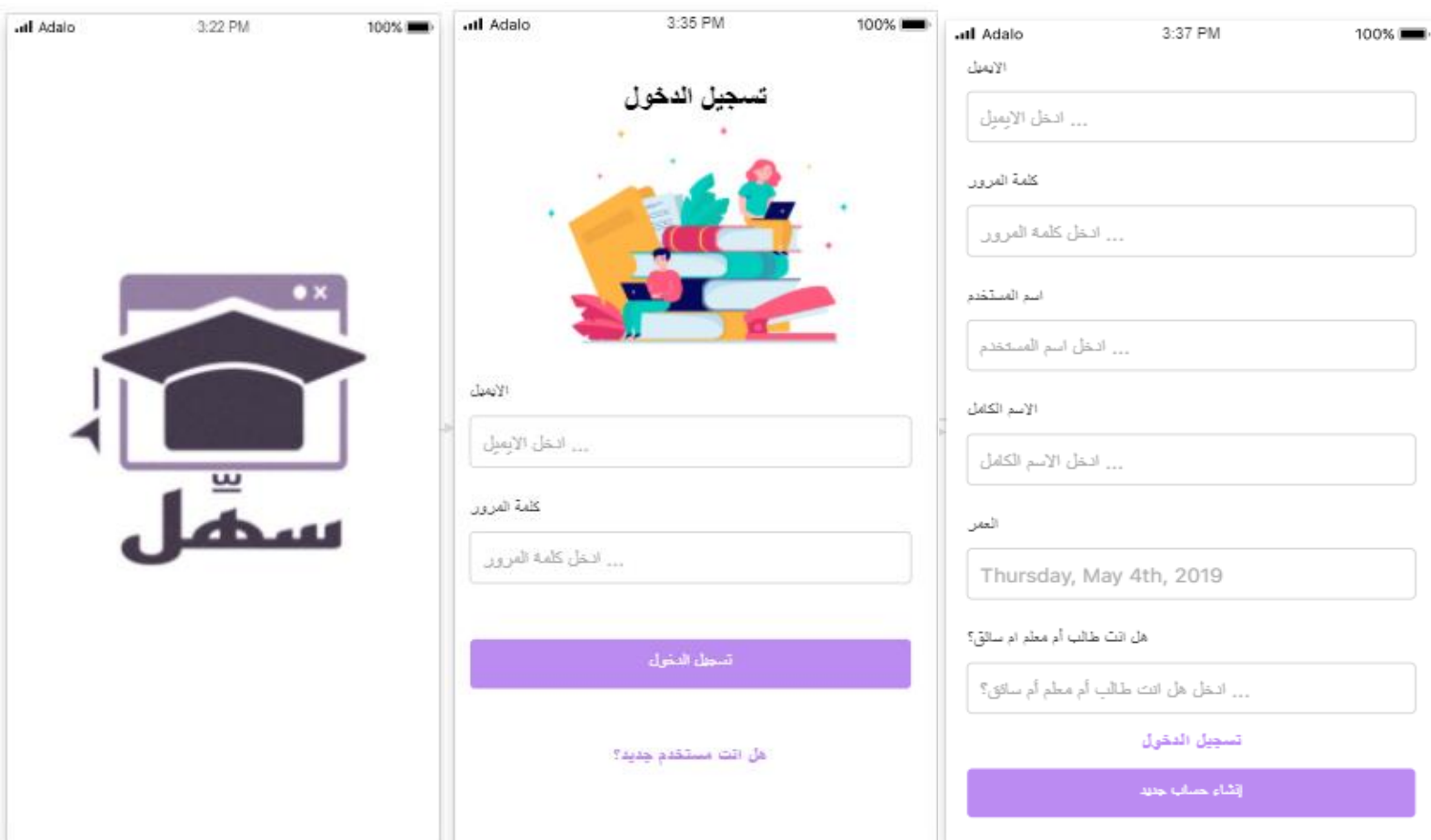
Implementation the application

What tool did you use? We used Adalo to implement our application rather than NetBeans.

Why?

We can build our application with just drag and drop expert-designed components. Automatically we can add interactions and database configuration without any code, also there are a lot of tutorials in English and Arabic that we can learn from it.

The full version of the final:



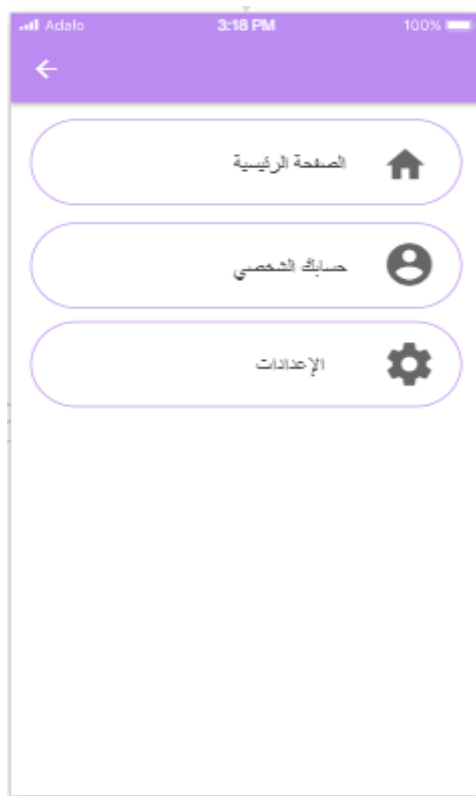
Clicking on the logo will open the Sign in interface

If the user already has an account, the user will enter the required information and click Sign in, and the Categories interface will open. If the user doesn't have an account, the user will click Are you a new

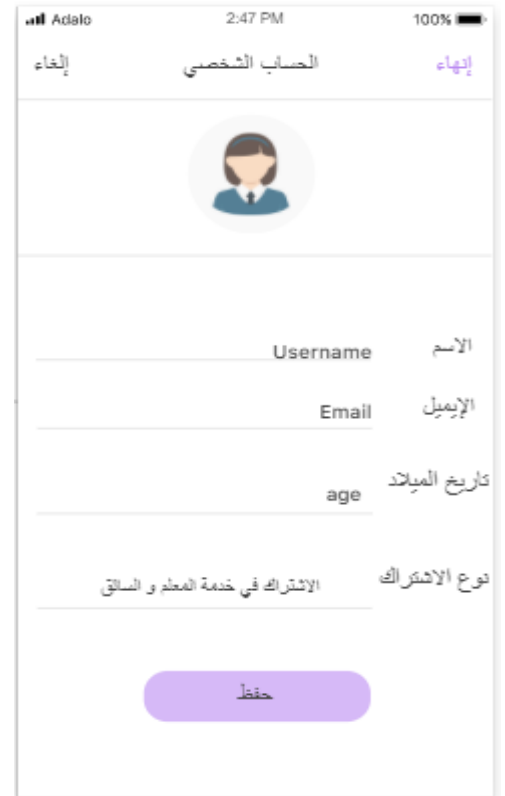
The user enters the required information to create an account for you in the application



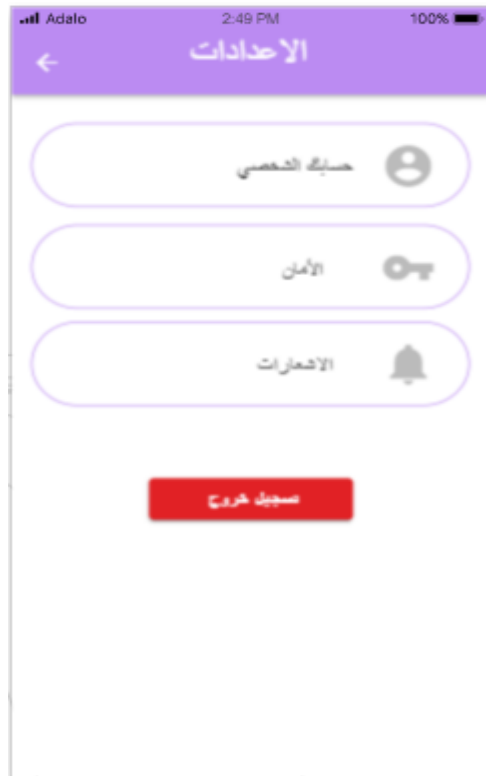
In the Categories interface there is right icon, if the user clicks the icon the Side menu interface will open, this action is for quick access to the user account and other interfaces



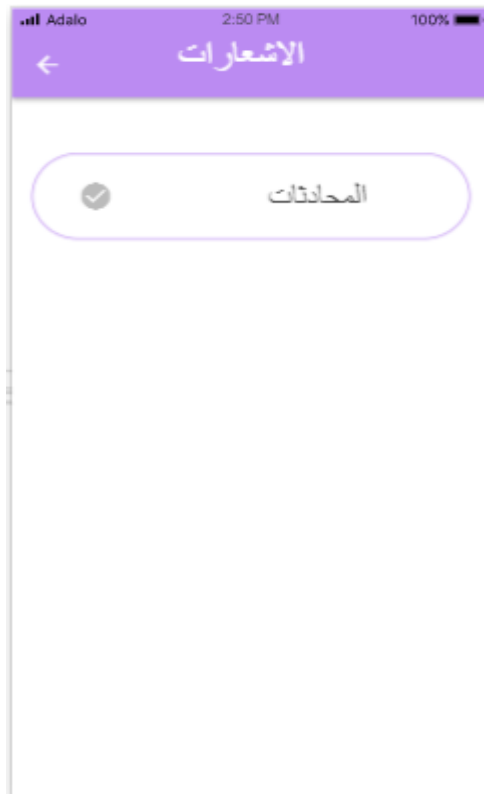
The user has three options, the first is to return to the Categories interface, the second is to access the Profile interface, and the third is to access the setting interface



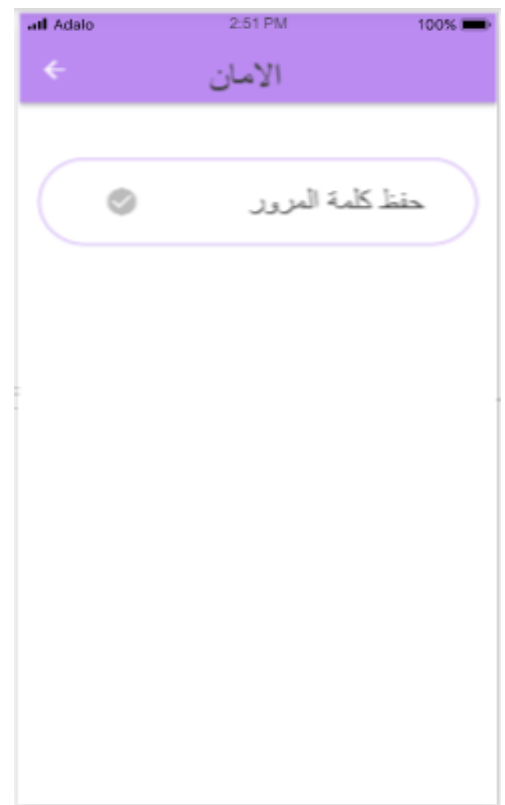
In the Profile interface, the user information and two icons appear, the first icon is the exit icon, this takes the user back to the categories interface, and the second icon is cancelled, which takes you back to the Side menu interface



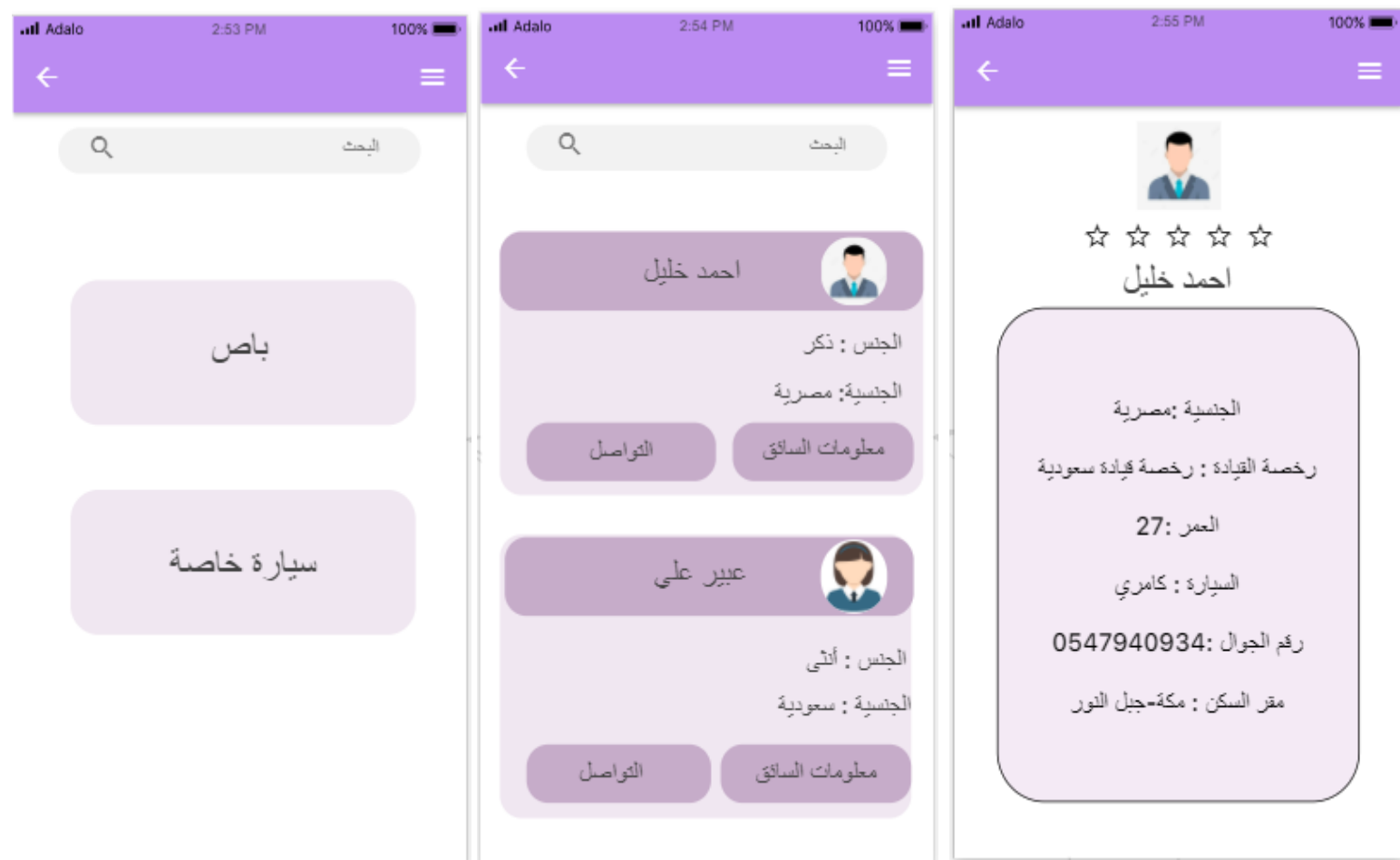
The setting interface shows the user 3 options, the first takes the user back to the Profile interface, the second leads the user to the Security interface, and the third takes the user to the Notification interface



In the Notification interface, chat notifications are activated automatically from the application, the user can turn them off



In the Security interface, automatic password saving is activated from the application, and the user can turn it off



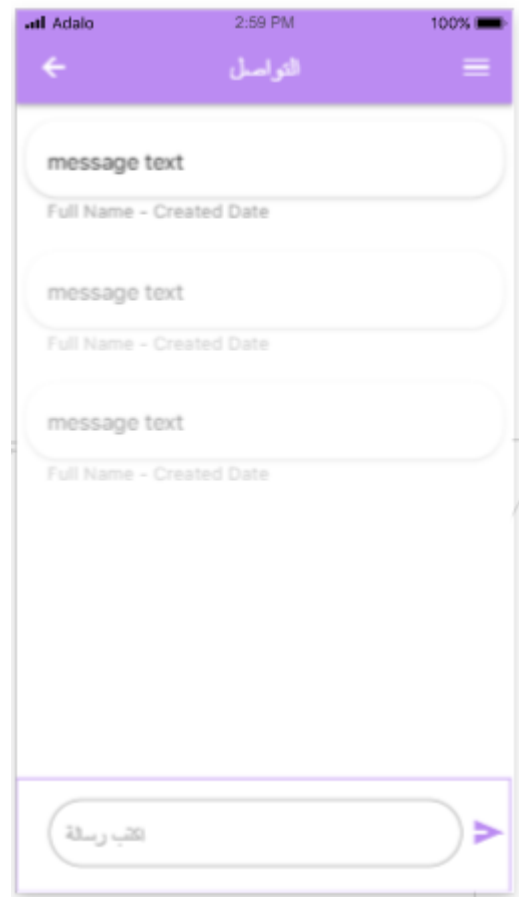
After choosing the driver button, this interface will appear for the user, which contains two categories of vehicles, the user chooses the most suitable, also in the top bar the icon in the left takes the user back to the Categories interface

After the user choose one type of the vehicles, the Driver interface will open, the user Choose the most suitable driver, the user can click on one of the two buttons, one for driver information and the other for chatting

When the user clicks on the driver information, the Driver information interface will appear



When the user clicks on the driver information, the Driver information interface will appear



When the user clicks on the chat button, the Chat interface with the driver will open for the user to send messages to driver for find out more information about the serve



when the user clicks on the teacher button, the Education grade categories interface will open, the user choose grade



When the user chooses the grade, the Subject categories interface will open. the user Choose the subject to learn



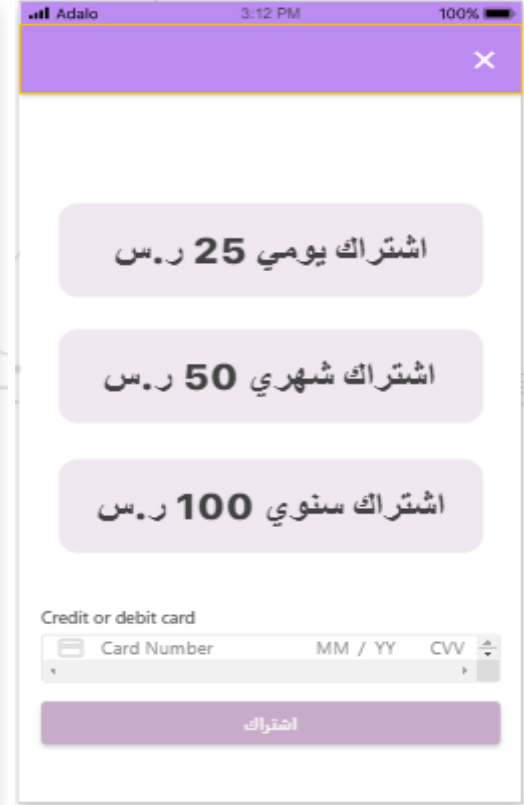
After the user choosing the subject to learn, the Teacher interface will open which containing a number of teachers. the user Choose the teacher that suits. every teacher has 4 buttons, for teacher information, chat, subscription, and a trial lesson



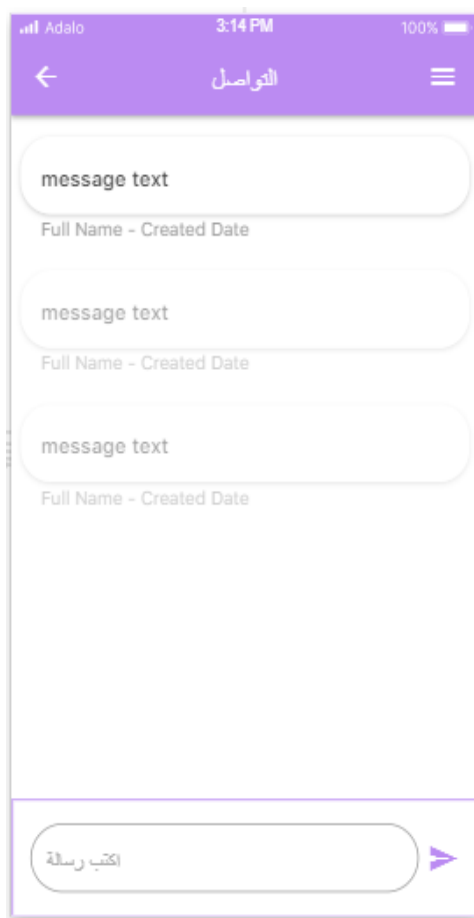
When the user clicks on the teacher's information, the Teacher information interface will appear



When the user clicks on the teacher's information, the Teacher information interface will appear



When the user clicks on the subscription button, the Subscription interface will appear. There are three types of subscription, the user chooses the most suitable, then the user enters card number, and click on the subscription button



When the user clicks on the chat button, the Chat interface with the teacher will open for the user to send messages to teacher for find out more information about the serve



When the user clicks on the demo lesson button, the Uploaded lesson interface will open so the user can choose the right teacher before subscribing



This is also a page with the same idea, but for another teacher and a different subject

Individual task for each member:

Number	Task	Member's Name
1	1- A brief description of the project Idea. 2- Non- Functional Requirements. 3- Scenarios: teacher table. 4- UML activity diagram. 5- Prototype. 6- Implementation. 7- Report.	مهرة الجعيد
2	1- A brief description of the project Idea. 2- Scenarios: admin table. 3- UML activity diagram. 4- Prototype. 5- Implementation. 6- Report.	أروى الزهراني
3	1- A brief description of the project Idea. 2- Scenarios: customer table. 3- Prototype. 4- Implementation. 5- Report.	صفية العقلا
4	1- A brief description of the project Idea. 2- Design the logo. 3- Scenarios: driver table. 4- Prototype. 5- Implementation. 6- Report.	أروى باواكد
5	1- A brief description of the project Idea. 2- Functional Requirements. 3- Use case diagram. 4- Scenarios: payment table. 5- Prototype. 6- Implementation. 7- Report.	ريم الشريف