

Child follow Up



College of Computer Science and Engineering, University of Jeddah
CCSW223: Principles of Software Engineering
Dr. Omniya wagih

Modi Alelayan
2110448

Dhay Alharbi
2114832

Ruba Almalki
2008707

Renad Alzumay
2110017

Rawan Almalki
2110262

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Lab' 2

Child Follow Up

The program aims to organize the attendance and departure of students, in addition to taking care of the student from a health point of view, as the students will get a smart watch, when the guardian comes to pick up his child, he will click on the child pick-up icon, which in turn sends a notification to the teacher, and also the screen lights up for the child to inform him that his guardian has come, and from a health point of view, when the child wants to buy from the school canteen through the smart watch, the seller can see if the child suffers from some allergens that the child suffers from, if he has that, and therefore he / she must be careful when giving it. Such products cause this, as well as adhering to calorie amounts to avoid obesity in some children. Another advantage is that the guardian can put a sum of money for his child in order for the child to be held accountable without giving him cash.



The student's parent

Name: Nourah Hamad Alkeaid

Job: Student Parent

Interview Date: Tuesday, December 27th

Contact Information: 0547309920

Presenter: Modi Yousef Alelayan

Question 1: Do you think it's good for parents to monitor their child's calorie intake?

Yes, to reduce obesity in children and their complications, by monitoring their containment with healthy food since childhood.

Question 2: Can allergic effects be reduced by raising parents' awareness of their children, or do you think the smartwatch will help with ease?

The smart clock will help small ages especially.

Question 3: What damages happened to your child after not organizing the departure?

Because of the crowded parking lots, we have to stand far away, which leads to blocking the street, and this is one of the biggest risks to children, and crowding the school entrance with parents, in addition to that, children crowding at the entrance, which leads to the spread of viruses and diseases among them.

Question 4: In the event that a guardian's notification of the child's health status is added through the application, what are the pros and cons?

Continuous follow-up, especially during seasons and winters, and those with chronic diseases such as diabetes.

Question 5: Do you have suggestions to be added to the program?

Add GPS and a direct contact button to the parent's phone for emergencies.

After the interview, there are many issues that were raised, and I noticed that some mothers do not know what their children eat in their schools, and also what problems happen to them, in addition to that they do not do periodic examinations for their children, and they do not know if their child suffers from health problems. The application will solve all these problems.

The student

Name: Jana Abdelmonaim Almosaad

Job: Student

Interview Date: Tuesday, December 27th

Contact Information: 0537600448

Presenter: Rawan Saeed Almalki



Question 1: Do you think it's good for parents to monitor their child's calories?

Yes, to avoid obesity, and no, because it would make me completely dependent on my parents.

Question 2: In your opinion, what are the pros and cons of the smart watch?

Pros: I see everything mentioned in the description of the application as one of the positives.

Cons: the lack of protection of the smart watch sufficiently.

Question 3: In the event of adding the feature of following your guardian to your daily score through the application, what are the pros and cons?

Pros: The guardian knows the child's weakness in some subjects and focuses on them to master them.

Cons: Putting the child in a position of stress and psychological pressure sometimes from the guardian.

Question 4: In the event that a guardian's notification of the child's health status is added through the application, what are the pros and cons?

There are no negatives, but the positives: In the event that something happens to a child, the guardian can intervene urgently.

Question 5: Do you have suggestions to be added to the program?

I suggest putting a secret code by the guardian, especially in the case of going out, to avoid kidnapping children.

After the interview and also from my years of study, I think that the students suffer from many aspects, for example from when they are sick, the teacher may think that the student is lying because she only wants to go home. Also, the students do not realize the importance of calories and the importance of their health, and in some schools they do not care what is the type of food they bring. Also the quality of the food they bring every day, and this is really annoying. I hope that this aspect will be considered and that our application will contribute to solving all these problems.

The School Manager

Name: Salma Abdulaziz Aljuhani

Job: School Manager

Interview Date: Thursday, December 29th

Contact Information: 0568213759

Presenter: Renad Mohammed Alzumay



Question 1: What are the problems you face in managing and organizing children and following them up at school?

Frequent morning lateness and absence, in addition to the fact that they do not have self-censorship.

Question 2: What problems do students face while buying from the school canteen?

Stampede and overcrowding due to the small number of saleswomen, in addition to the fact that there is no variety in meals.

Question 3: In your opinion, what is the solution to the suffering of some students from food allergy?

Asking the guardian to explain the health problems of his child at the beginning of each academic year, and to bring a medical report proving the case.

Question 4: What problems do students face while returning home?

Stampede, overcrowding, and delay in the guardian's presence to take his child, reckless play that could harm them, for example, running and splashing each other with water.

Question 5: Do you have suggestions to be added to the program?

Some parents of students suffer from ignorance of technology and limited financial ability, so I suggest adding ways to teach them or alternative methods.

After the interview, and from my personal point of view, I see that school principals are unaware of the problems and sufferings that occur in schools, so hardship is often on teachers, but I do not know if this is really our reality or is it my personal analysis. I think that the application will help a lot in parents' follow-up of their children.

The Health Supervisor

Name: Morouj Ahmed Aldarmsi

Job: Health Supervisor

Interview Date: Wednesday, December 28th

Contact Information: 0555363657

Presenter: Dhay Alharbi



Question 1: What are the ways through which you can prevent allergic reactions in a child?

Avoidance triggers and sensitization.

Question 2: What is the correct and quick action to be taken when a child is allergic to it?

Giving an injection of epinephrine and transporting him to the nearest health center.

Question 3: Can you mention the most dangerous health conditions that a child may face in his school and must be monitored?

Low sugar.

Question 4: Can you name other types of allergies that a child may face in his school?

Food allergy, plant allergy, chlorine allergy, cat allergy.

Question 5: Do you have suggestions to be added to the program?

Keep track of the child's location - calculate calories burned.

After the interview, I discovered that it is not possible to identify all kinds of allergies that a child might face. It is possible that the cause of the allergy is something that is not mentioned. For example, there is an allergy to whiteboard pens and many others, but who would have thought that whiteboard pens cause allergies to some, so I would like to add in The application shares medical analyzes for each student to take caution. In addition, we must take into account any disease, so I find medical analyzes important.

The Teacher

Name: Marwa Abdo Alrayani

Job: Teacher

Interview Date: Tuesday, December 27th

Contact Information: 0506659579

Presenter: Ruba Saad Almalki



Question 1: In your opinion, what are the difficulties that teachers may face in taking attendance and absence?

Excluding a student by mistake from attendance - the names of some students are similar, so the error is likely.

Question 2: What are the problems that students face while returning home?

Overcrowding and jostling - Arguing that my father does not call me, I will go out to see him, which leads to many problems.

Question 3: In your opinion, what is the solution to the suffering of some students from food allergy?

Identifying allergens in every student, especially young children, through the smart watch.

Question 4: Can you mention a case of allergic reaction to a student that you encountered during your educational career?

A child ate cashew nuts and was allergic to nuts.

Question 5: In the event that the parent follows up the daily grades of the child through the application, what are the pros and cons?

It is wonderful to facilitate the teacher instead of communicating through social networking applications.

After the interview, I noticed from the teacher's words that the teachers have a lot of suffering that they face with their students. Other than that, at the time of preparation, if one of them falls inadvertently, it will result in a lot of problems from the parents. Also, when leaving, the students argue that their father does not call them into the microphone, which can also cause a lot. From the problems, therefore, from my point of view, I see the application as very important and has many advantages that will reduce risks.

Lab 3

The purpose of the project

a. The User Business or Background of the Project Effort

Content

Smart child monitoring system that allows parents and teachers to follow the child through the smart watch, as it allows the child's father to inform the son when he arrives to take him home by means of a light or sound alert in the smart watch, and it also allows the teacher to inform the child's guardian in the event of a disease, and it allows for the teacher to record the absence and attendance of the child to school via the smart watch.

The system also includes other features.

Motivation

Developing a smart watch application that helps students attend in an effortless way and solves the problem of late in departure.

Considerations

Students face many problems including crowding in front of the school at the time of departure through the smart watch that will solve this problem and provide many features such as facilitating the attendance of students and tracking their academic status.

b. Goals of the Project

Smart watches are becoming increasingly popular, and for good reason. So, the thought of a helpful system that happens to be for students that care for their appearance needs to be something that's publicly appealing and that's one of our main goals. But application wise our goal boils down to make something helpful and to end a lot of issues that not only both the students and parents face but also to a variety of school members. everything will revolve around our tech so less paper waste for a more green environment.

Preliminary report

1- The problem:

We have many school problems, and we are working to improve quality by introducing technology to facilitate and save time and effort for students and teachers. One of the most prominent problems that large schools need to improve is taking attendance, absence, and students leaving school.

1- Teachers are assigned to take attendance and absence, which leads to taking part in the school class time.

2- Many problems fall under dropping out of school:

- Some parents are late
- Student quarrels due to lack of organization of dismissal

3- Schools' neglect of the student's health, especially the allergies he suffers from

- This leads to poor health for the student

4-The child's lack of knowledge of the calories that suit him, which leads to weight gain

- It is essential to know the number of calories that suit a person so that he does not suffer from malnutrition from eating too much
- Also, it is possible to save extra money or excess food by calculating the calories for the student by multiplying their number to add the appropriate amount of food that the school needs.

2- Finding:

- Allergies of children to certain foods are not considered.
- Parents do not follow the children completely and continuously.
- The teacher must go through all the classrooms to take attendance.



Preliminary report

3- Recommendation or proposed solution:

- 1-taking the students attendance with the watch.
- 2-the watch saves the students data and sends it to the student parents.
- 3-it has all the data about a student allergy to make sure the student does not get served something harmful.
- 4-the student academic stats do not fall far behind when absent hence everything is sent via the application.
- 5-the watch tracks the student's data and work along the school day so the parents can be always alert.
- 6-less crowds outside the school doors with the tech of tracking the school day.
- 7-lowering the cost of the watch and application so it can be implemented to every school system.
- 8-gives an option to the user whether to only use the app by itself or get the watch for a more practical and open market.
- 9-the watch and the app do not require Wi-Fi to always be working where and whenever needed.

4- Cost & schedule estimates:

phase	description	cost	time
Specification	defining what the system should do	1000 riyals	one week
Development	defining the organization of the system and implementing the system	2900 riyals	3 months
Validation	checking that it does what the customer wants	600 riyals	5 days
Evaluation	changing the system in response to changing customer needs	30,000 riyals	2 weeks
total		34,500 riyals	116 days



Lab 4

Report writing

1- Problem Definition:

We have many school problems, and we are working to improve quality by introducing technology to facilitate and save time and effort for students and teachers. One of the most prominent problems that large schools need to improve is taking attendance, absence, and students leaving school.

1- Teachers are assigned to take attendance and absence, which leads to taking part in the school class time.

2- Many problems fall under dropping out of school:

- Some parents are late
- Student quarrels due to lack of organization of dismissal

3- Schools' neglect of the student's health, especially the allergies he suffers from (sub problem)

- This leads to poor health for the student

4-The child's lack of knowledge of the calories that suit him, which leads to weight gain (sub problem)

- It is essential to know the number of calories that suit a person so that he does not suffer from malnutrition from eating too much
- Also, it is possible to save extra money or excess food by calculating the calories for the student by multiplying their number to add the appropriate amount of food that the school needs.

2- Scope Objectives of “new system”:

Child Follow Up

The Objective: Converting children's follow-up and school preparation from traditional to electronic.

What distinguishes our application from other applications is that it creates a kind of communication between the teacher and the parents. It will also be in the periodic follow-up of the student by the guardian, such as knowing his grades and health status for the day.



Report writing

3- Alternative Solutions:

- 1-Replace the watch with a card that contains a barcode for the student and the application with a website.
- 2-Record the attendance of students with a fingerprint system linked to the school website.

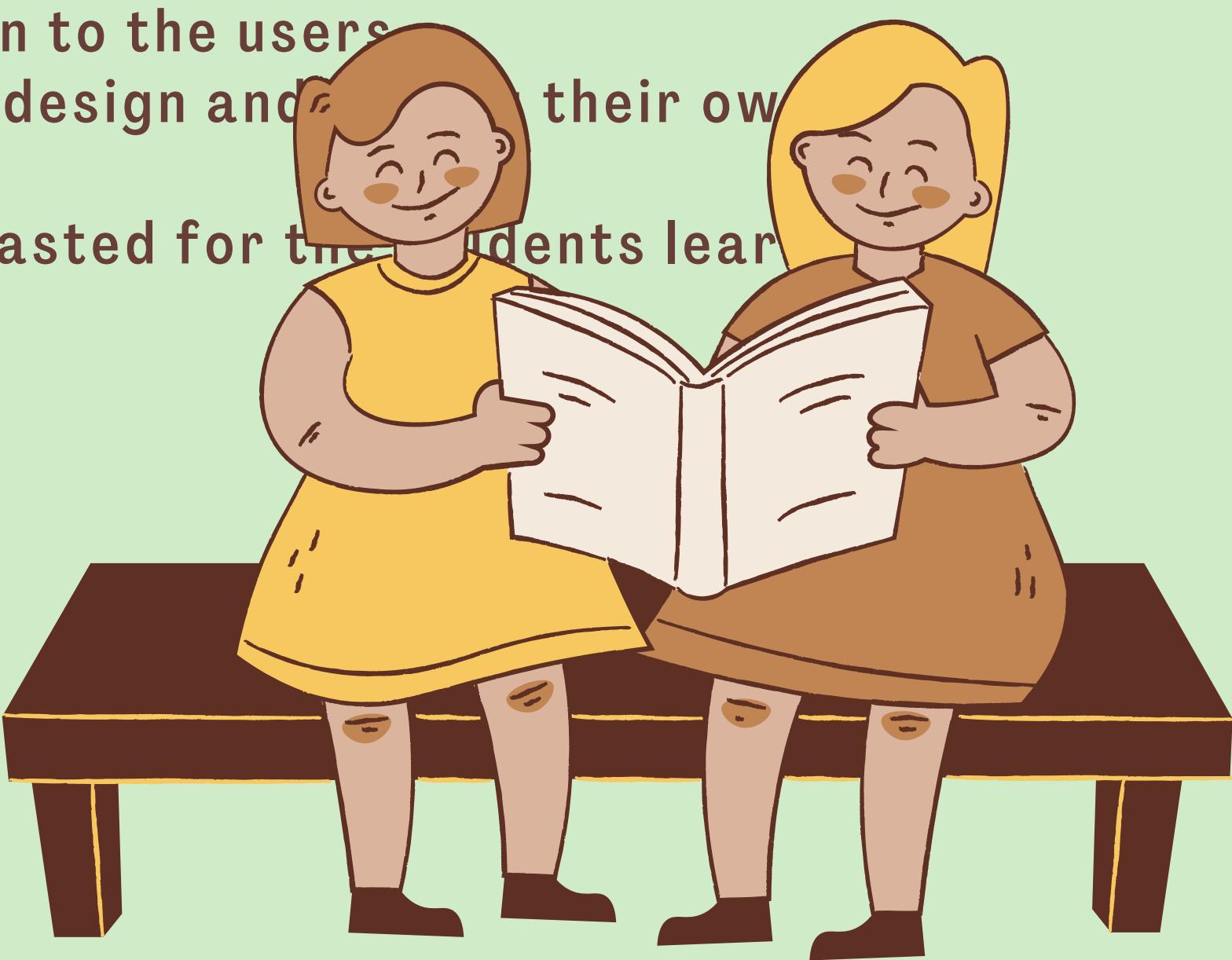
4- Cost and benefits of Alternatives:

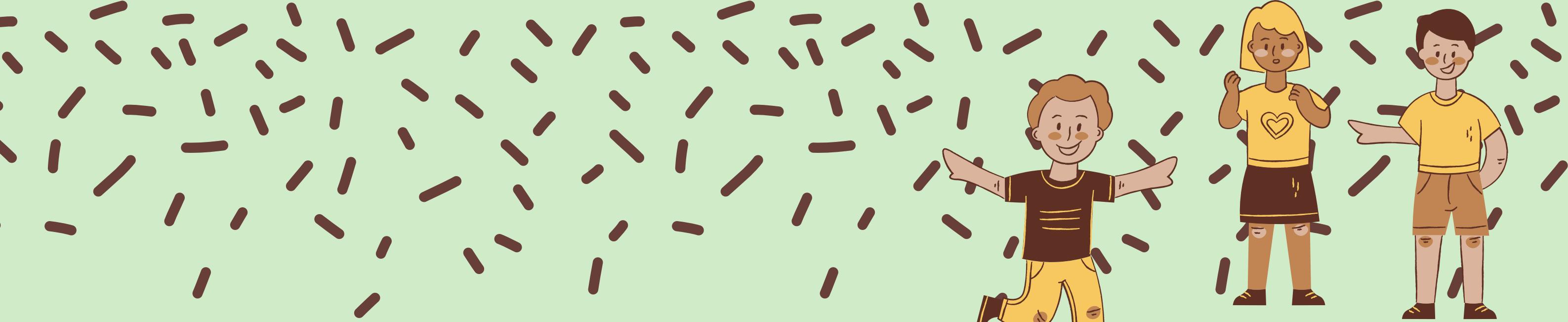
phase	description	cost	time
Specification	defining what the system should do	500 riyals	5 days
Development	defining the organization of the system and implementing the system	145 riyals	1 week
Validation	checking that it does what the customer wants	300 riyals	3 days
Evaluation	changing the system in response to changing customer needs	650 riyals	2 days
total		1,595 riyals	17 days

Benefits of the alternative solution: faster implementation, facilitating attendance registration, does not contain electronics, and its price is cheap

5- Software impacts:

- 1- various offerings and concepts
- 2- there could be a sound alert modification to make it only vibrate. when needed for less distraction to the users
- 3- a flexible space for all users to design and their own experience with the application
- 4- the application minimize time wasted for the students learning experience





Report writing

6- Potential Changes in the Organization:

Ease of taking attendance and absence.

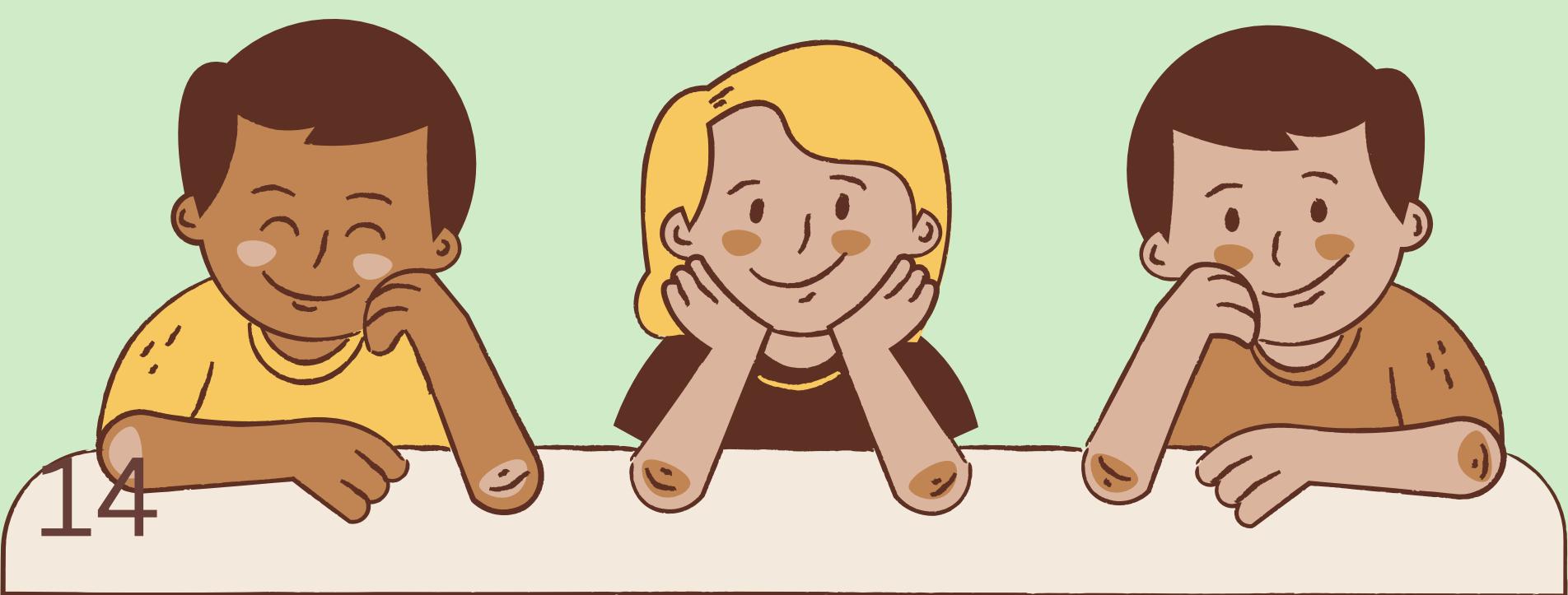
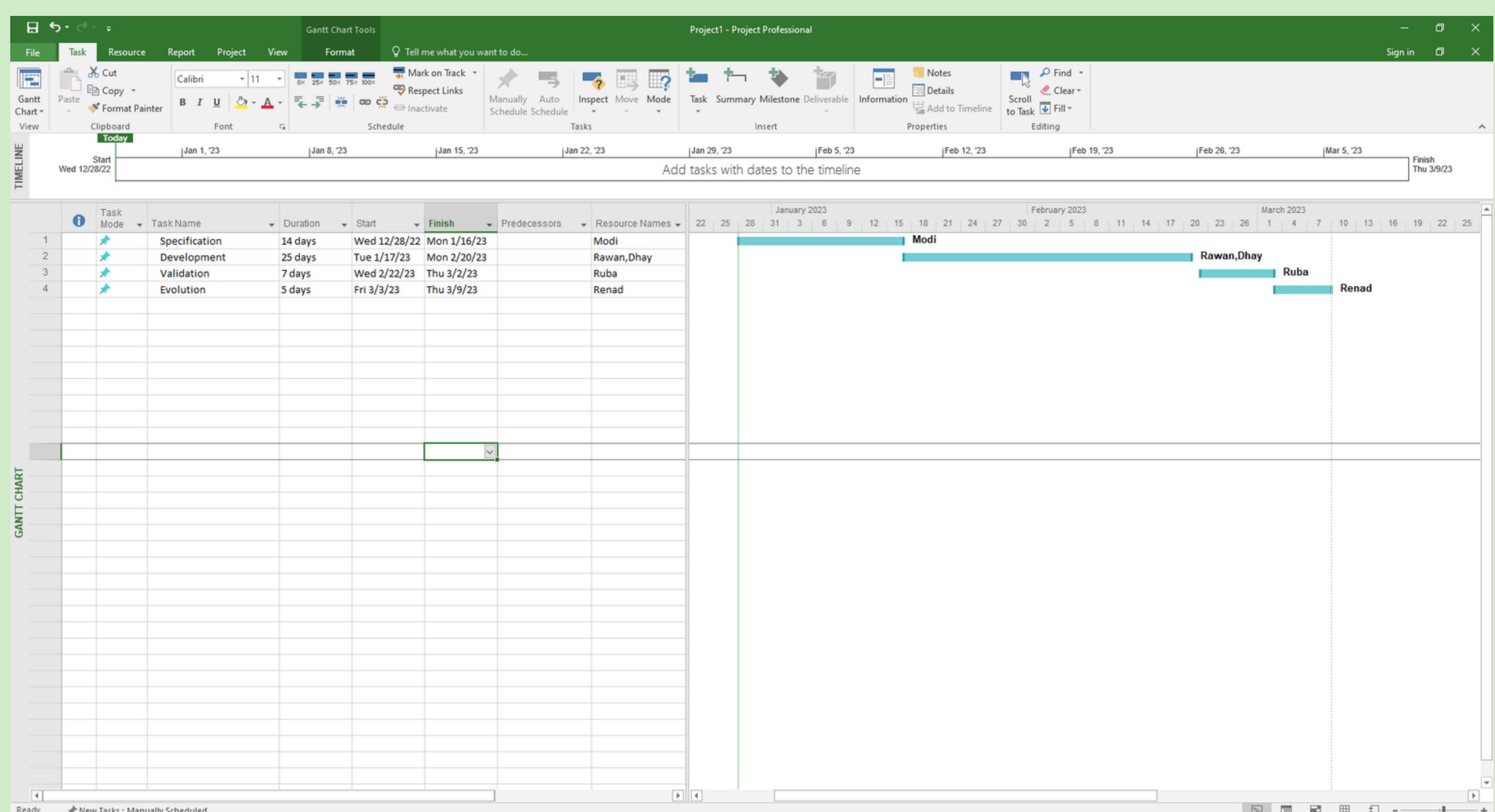
Easy to follow and monitor children.

Organizing the students in time of departure.

7-Recommended Alternative of the course of Action:

Replace the watch with a card that contains a barcode for the student and the application with a website

Project plan



Lab'5

Context Diagram

- Stockholder definition
 - a. The Client
Elementary school
 - b. The Customer
Teachers and parents
 - c. Other Stakeholder
Ministry of education and other employees



The scope of the work

a. The Current Situation

Content:

In schools, teachers are forced to go through all the classrooms to take attendance and absences, and it is very crowded at the exit gate while students go out, and parents follow up with their children traditionally by going to school and asking about them.

Motivation:

Our system aims to take attendance and absence through the smart watch, where parents follow their children through the application, and alert the child through the smart watch in the event that his guardian arrives to take him home.

b. The Context of the Work

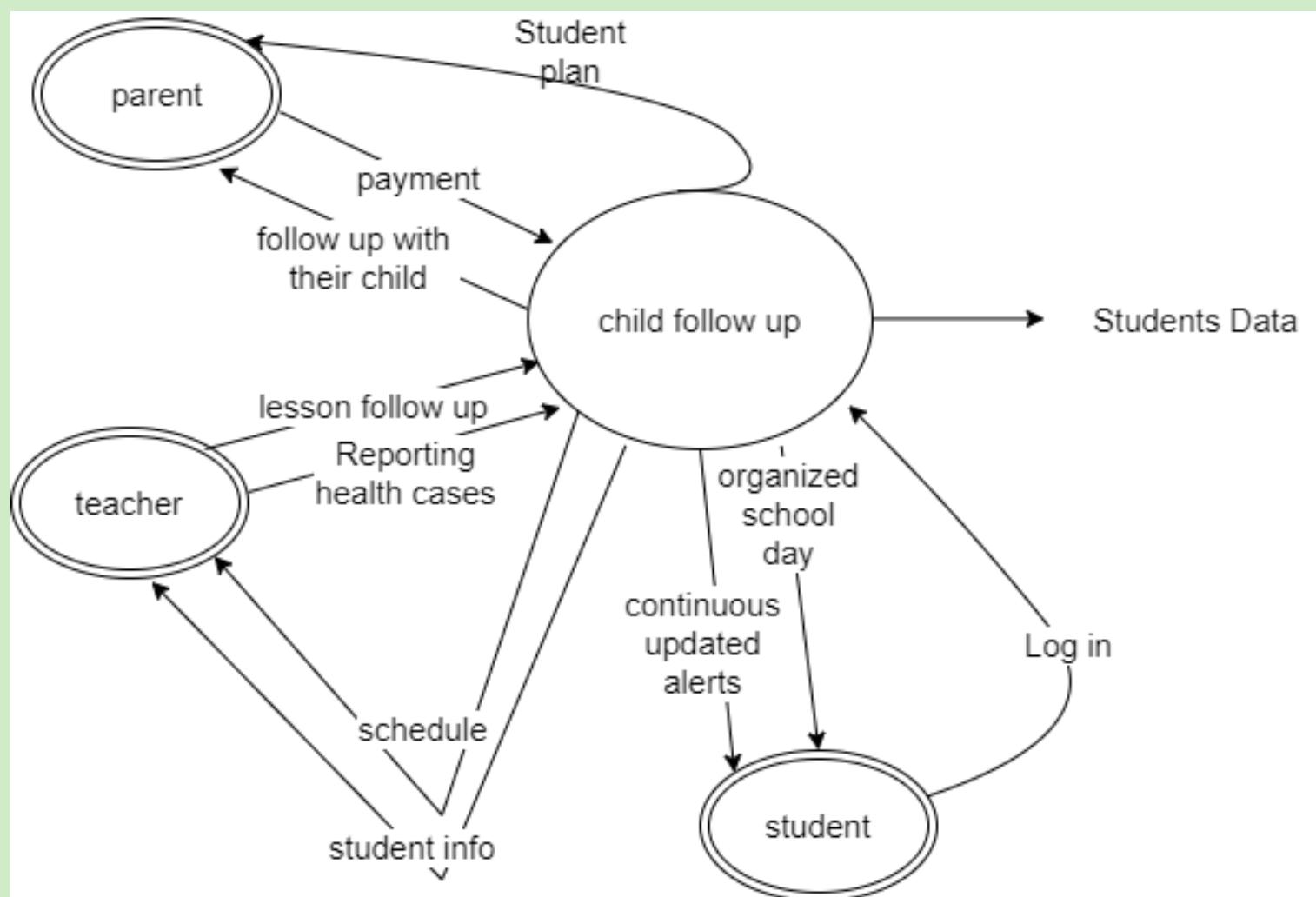
Content:

After implementing the smart watch application, we helped facilitate attendance of students and also contributed to reducing crowding in front of the school at the time of departure.

Motivation

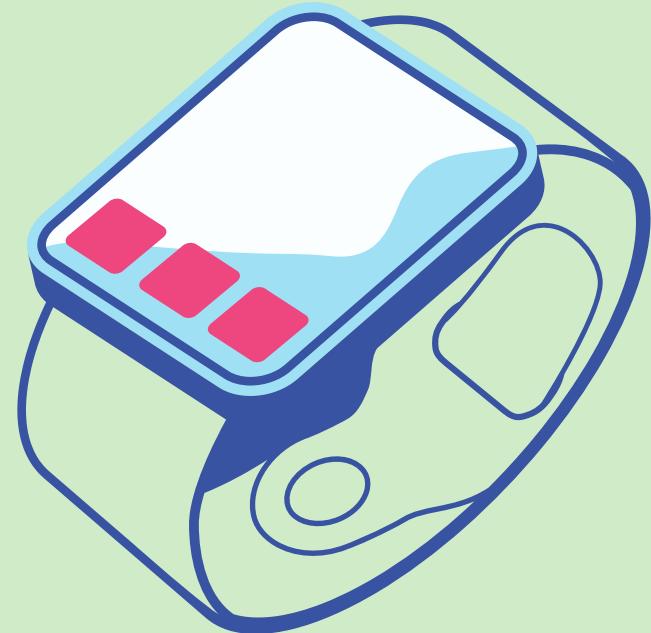
The goal of our program is to help students in terms of health more .. Some possible developments to develop our program further, which is to monitor the sugar level in the event that the student has diabetes, and also to measure the student's temperature, in the event of a high temperature, the teacher informs the guardian of this matter through the application. By appointment of medication for those who suffer from chronic diseases or otherwise, giving medications by the teacher.

Context diagram :



Business Event List:

Event Name	Input and Output	Summary
1- Continuous updated alerts	Continuous updated alerts (out)	Alert the child upon the arrival of his guardian
2- Organized school day	Organized school day (out)	Organizing the presence and exit of the child results in the organization of his day
3- Student log in	Log in (in)	Registering the child during his attendance using the barcode reader
4- Student plan	Student plan (out)	Inform parents of the child's study plans
5- Payment	Payment (in)	Parents financing some money for their children
6- Follow up with their child	Follow up with their child (out)	They follow up on everything related to their children through the application
7- Lesson follow up	Lesson follow up (in)	The teacher updates the student's academic information
8- Reporting health cases	Reporting health cases (in)	The teacher updates the student's health information
9- Schedule	Schedule (out)	The parameter is given its schedule by the app
10- Student info	Student info (out)	The teacher is provided with student information
11- Student data	Student data (out)	Student data is placed in the school's database



Lab 6

Functional Requirement

ID	Requirement Definition
FR1	Create an account
FR1.1	The system shall enable a Parent/Teachers to create an account depending on ABSHER information.
FR2	Inclusion of children
FR2.1	The system allows the Parent to include the names of his children who will be included in the application, knowing that only he can add the children who are in the family record, which matches the ABSHER application.
FR3	Login
FR3.1	The system shall allow the Parent/Teachers to gain the system through username and password, also the login required authentication to verify the user identity.
FR4	Child follow up
FR4.1	The system allows the parents to follow up on the child and know his academic level and duties
FR5	Payment
FR5.1	The system allows parents to transfer a sum of money to their children so that the children can benefit from the material by buying from the canteen.
FR6	Arrival alters
FR6.1	The system provides the feature of alerting the child and the teacher when the father arrives.
FR7	Lesson follows up
FR7.1	The system forces the teacher to update the child's academic progress and also inform the parents if there are notes on their child.
FR8	Reporting health cases
FR8.1	The system provides a follow-up service for the child's health condition, so that the teacher updates the child's condition so that parents are quickly informed in the event of their children's illness.
FR9	Reporting health cases
FR9.1	The system allows the child to buy from the canteen through the amount given by the father, and also alerts the saleswoman of the allergies that the child suffers from.
FR10	Student schedule
FR10.1	The school attaches the children's schedule in the system with the days and times of classes.
FR11	Teacher's schedule
FR11.1	The school attaches the teachers' schedule in the system with the days and times of classes.
FR12	Continuous students alert



Non-Functional requirement

user interface:

- 1- The interface of the system must be easy to use for different users such as parents and teachers and does not require any level of technical knowledge and experience.
- 2-The system must provide certain functions according to the user's permission.
- 3-The system must provide a colorful and suitable interface for the idea.

Hardware interface:

1. The system has the ability to change and adapt to new technologies in hardware and should be implemented in a hardware-independent manner and should not depend on any particular hardware interfaces.

Software interface:

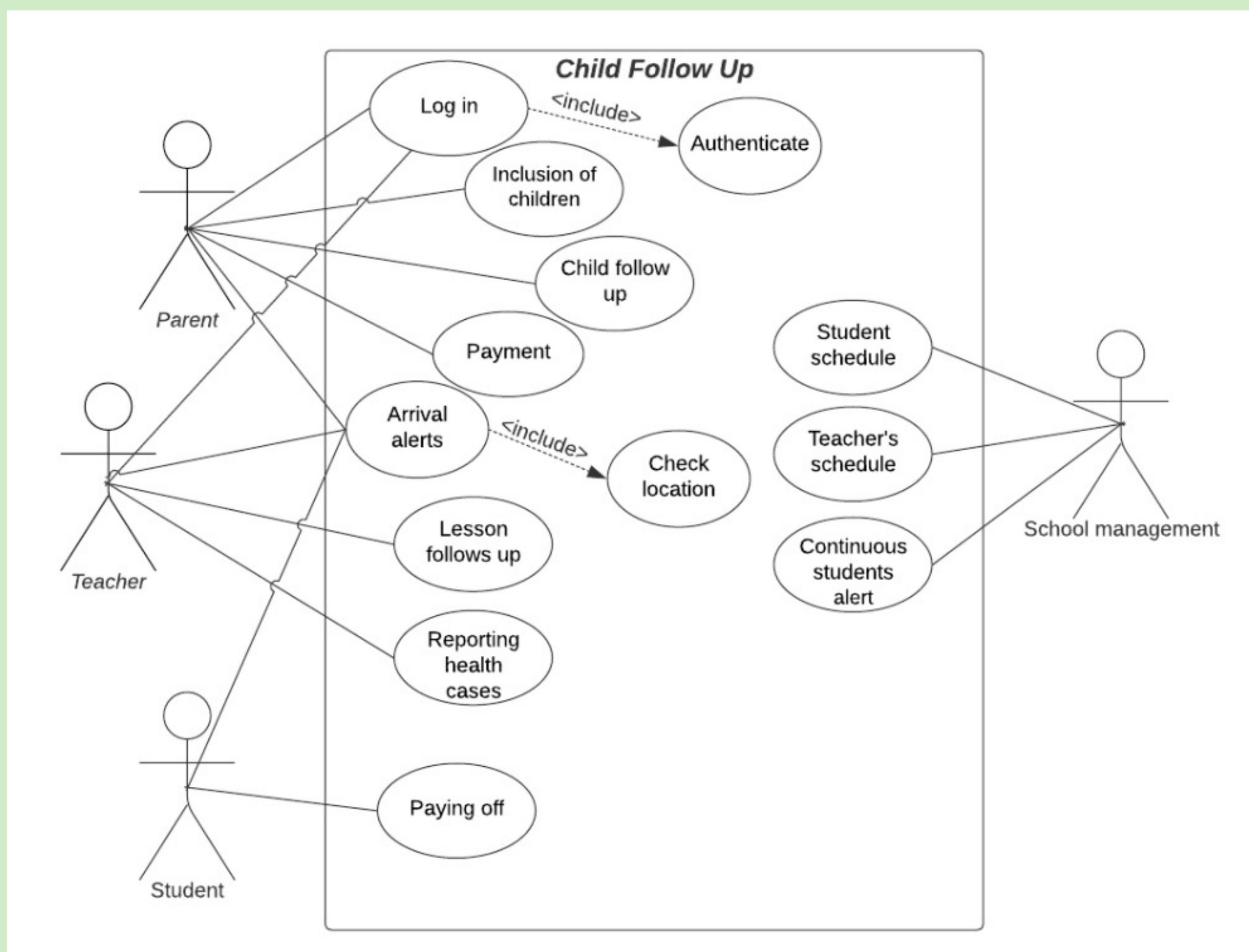
The child follow-up management system must communicate with the school system database and the Absher system database to extract the required information, including the username and password, to verify the user's access to the follow-up program management system.

Security requirements:

- 1- The system provides a login page, and the system also allows teachers to access services. Only authorized persons can make changes such as delete, add, edit and alert parents.
- 2- Parents can also give permission to family members to transfer their children from school , the person's entry will be verified by sending a verification message to the child's father.

Lab 7

Use Case (Modeling)



Use Case (Description)

UC1: Parent

Scope: parent.

Level: log in for parent.

Primary Actor: parent

Precondition: user must have an account

Stakeholders and Interests:

school management and ministry of education

Scenario of UC1: Parent

- 1-After the parents create an account and start log in process
- 2:the system verify the password and authentication.
- 3: If the verification process is successful, the login process will succeed.
- 4: If the verification is not successful, the login will fail and the parent will try again.

UC2: Teacher

Scope: teacher.

Level: log in for teacher.

Primary Actor: teacher

Precondition: user must have an account

Stakeholders and Interests:

school management and ministry of education

Scenario of UC2: Teacher

- 1-After the teacher create an account and start log in process
- 2:the system verify the password and authentication.
- 3: If the verification process is successful, the login process will succeed.
- 4: If the verification is not successful, the login will fail and the parent will try again.

Use Case (Description)

UC3: child follow up

Scope: parent , teacher .

Level: follow up by parent.

Primary Actor: parent

Precondition: allownotifications

Stakeholders and Interests:

school management and ministry of education

UC4: payment

Scope: parent , student .

Level: put many by parent.

Primary Actor: parent

Precondition: valid credit card

Stakeholders and Interests:

school management and ministry of education

Scenario of UC3: child follow up

1- The teacher entered the student's progress and notes

2- Parents see their child's progress and teacher's feedback

3- Parents and teachers can argue

UC5: arrival alert

Scope: parent , student , teacher .

Level: parent alert child to go out .

Primary Actor: parent , teacher

Precondition: allownotifications

Stakeholders and Interests:

school management and ministry of education

Scenario of UC4: payment

1- the system ask parent to log in and verify from password.

2-the parent click on add card services.

3-the parent add card information then system will verify by request pin on phone number.

4- if the card information is right the system will allow parent to transfer amount on child smartwatch.

5- if the information was wrong the system will display error message.

UC6: lesson follow up

Scope: teacher, parent

Level: Writing notes about the child and his performance in the study.

Primary Actor: teacher

Precondition: allownotifications

Stakeholders and Interests:

school management and ministry of education

Scenario of UC6: lesson follow up

1- the teacher write notes between period about performance of child

2- parents should follow up this notes to know about performance of their child

Use Case (Description)

UC7: reporting health cases

Scope: teacher.

Level: reporting health cases .

Primary Actor: teacher

Precondition: health information

Stakeholders and Interests:

school management and ministry of education

UC8: paying off

Scope: student , parent.

Level: take money from parent to buy.

Primary Actor: student

Precondition: smartwatch

Stakeholders and Interests:

school management and ministry of education

Scenario of UC7: reporting health cases

- 1- The teacher sends a notification to the parents if the son is tired
- 2- Parents deal with the notice and tell the teacher how to act

UC9: student schedule

Scope: school management , student.

Level: arrange student schedule.

Primary Actor: school management

Precondition: must have application

Stakeholders and Interests:

school management and ministry of education

Scenario of UC8: paying off

- 1-After the father adds the card and the son's expenses in the application.
- 2-The son uses the smartwatch to paying off.
- 3-If the verification is successful, the paying off process succeed
- 4--If the verification not is successful, the paying off process failed

UC10: teacher schedule

Scope: school management, teacher.

Level: arrange teacher schedule.

Primary Actor: school management

Precondition: must have application

Stakeholders and Interests:

school management and ministry of education

Scenario of UC9: student schedule

- 1- student must download application and have account
- 2- in order to follow his study plan
- 3- if you cannot have account the schedule disappear for his

Scenario of UC10: teacher schedule

- 1- teacher must download application and have account
- 2- in order to take his study schedule
- 3- if you cannot have account the schedule disappear for his

Use Case (Description)

UC11: continuous students alerts

Scope: school management

Level: continuous students alerts

Primary Actor: school management

Precondition: must allow notification

Stakeholders and Interests:
school management and ministry of education

Scenario of UC11: continuous students alerts

1- The parent click arrival button

2- The school manager's check the parent location

3- if close th the school the child will go out

4- if far from the school the child will not go out

UC12: inclusion of children

Scope: parent

Level: inclusion of children

Primary Actor: parent

Precondition: insuring there's no epilepsy/sensory overload

Stakeholders and Interests:
school management and ministry of education

Scenario of UC12: inclusion of children

1-after the parent log in his account .

2- the parent click on register child .

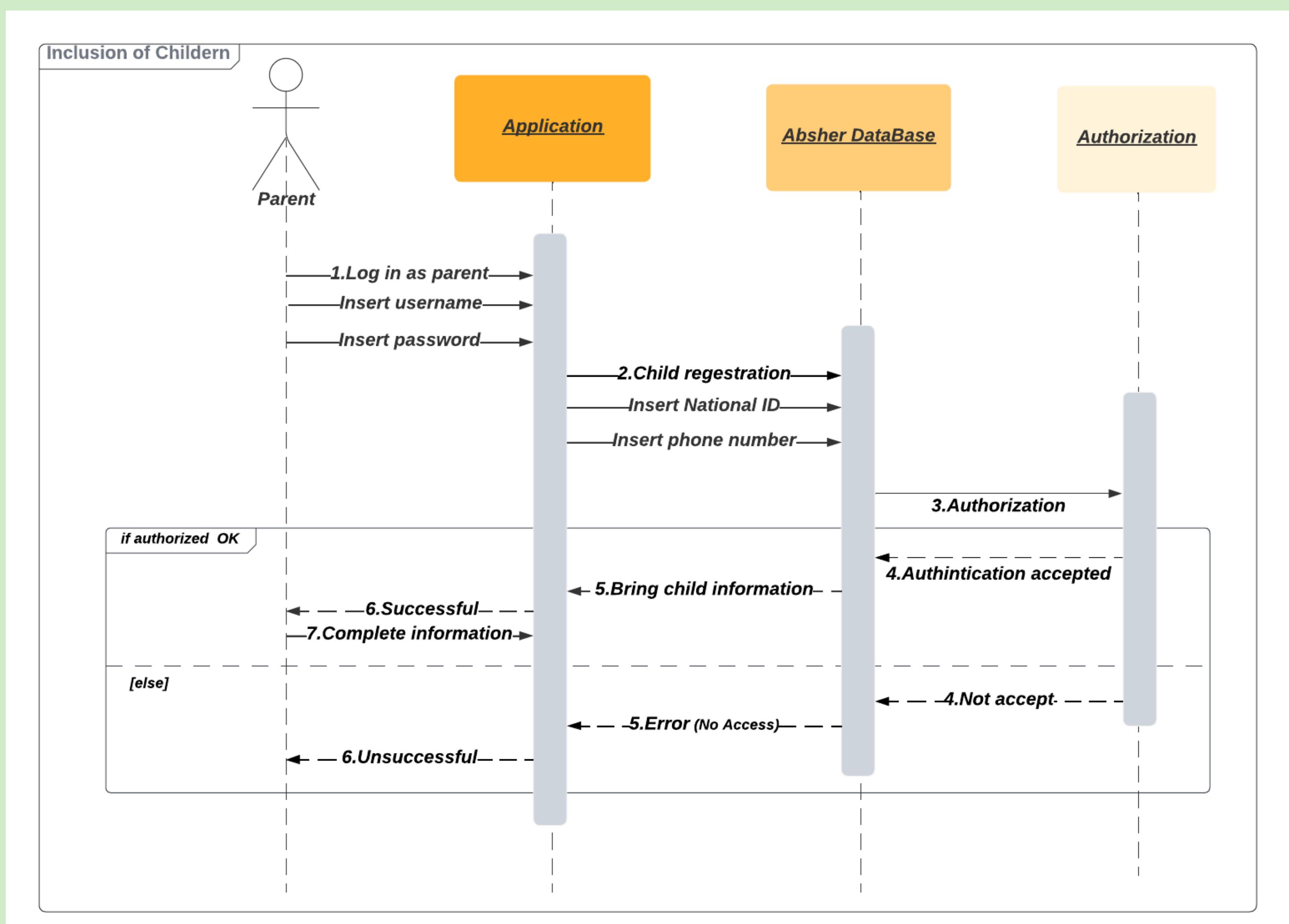
3-the system will ask the parent about his/her National id and phone number to bring child information from Absher Database.

4-if the authorization was right the system the parent will see all his children's data will allow the parent to choose the child who wants to be registered and allow to add more information .

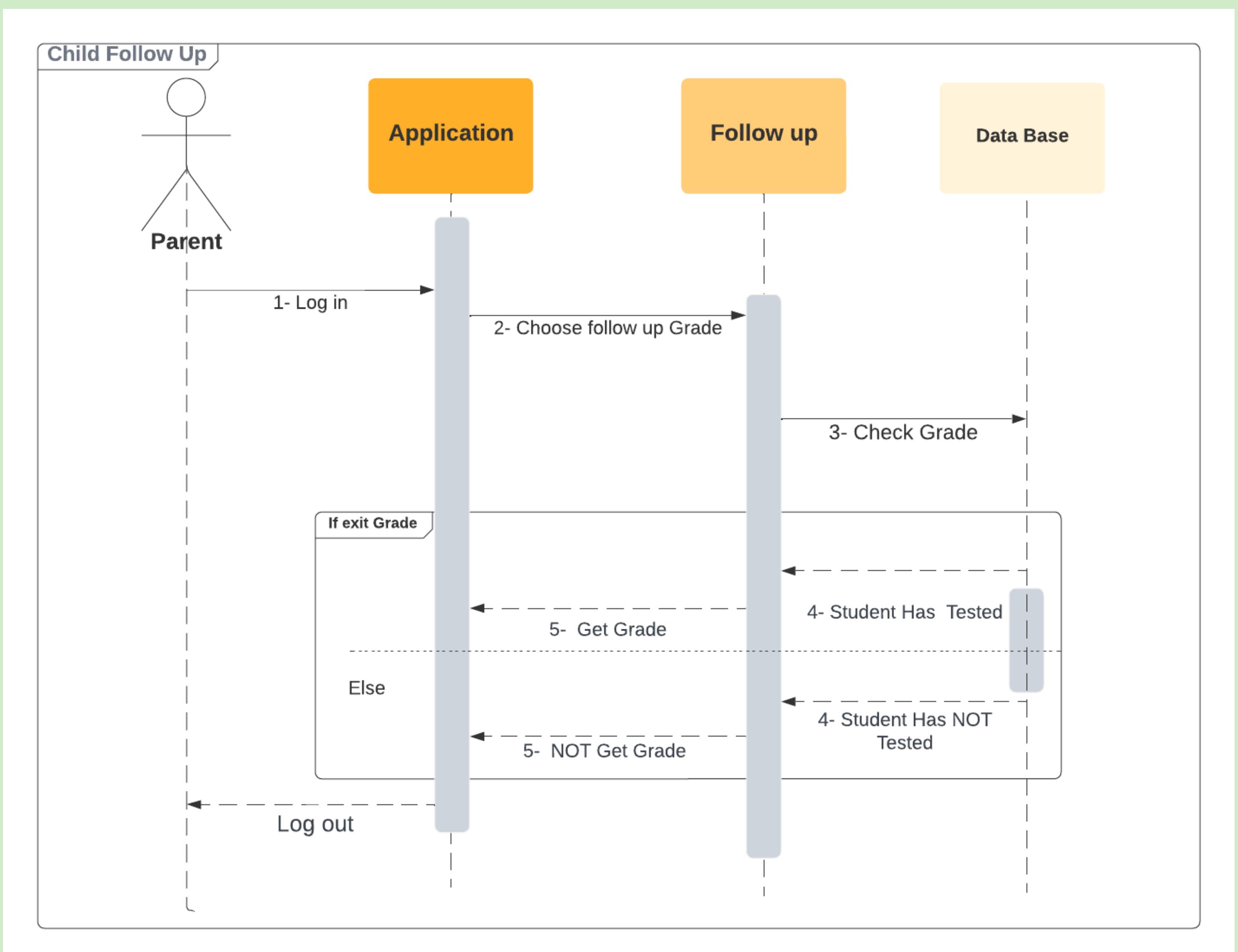
5- if the authorization was wrong the parent can't enter the system, an error message display.

Lab'8

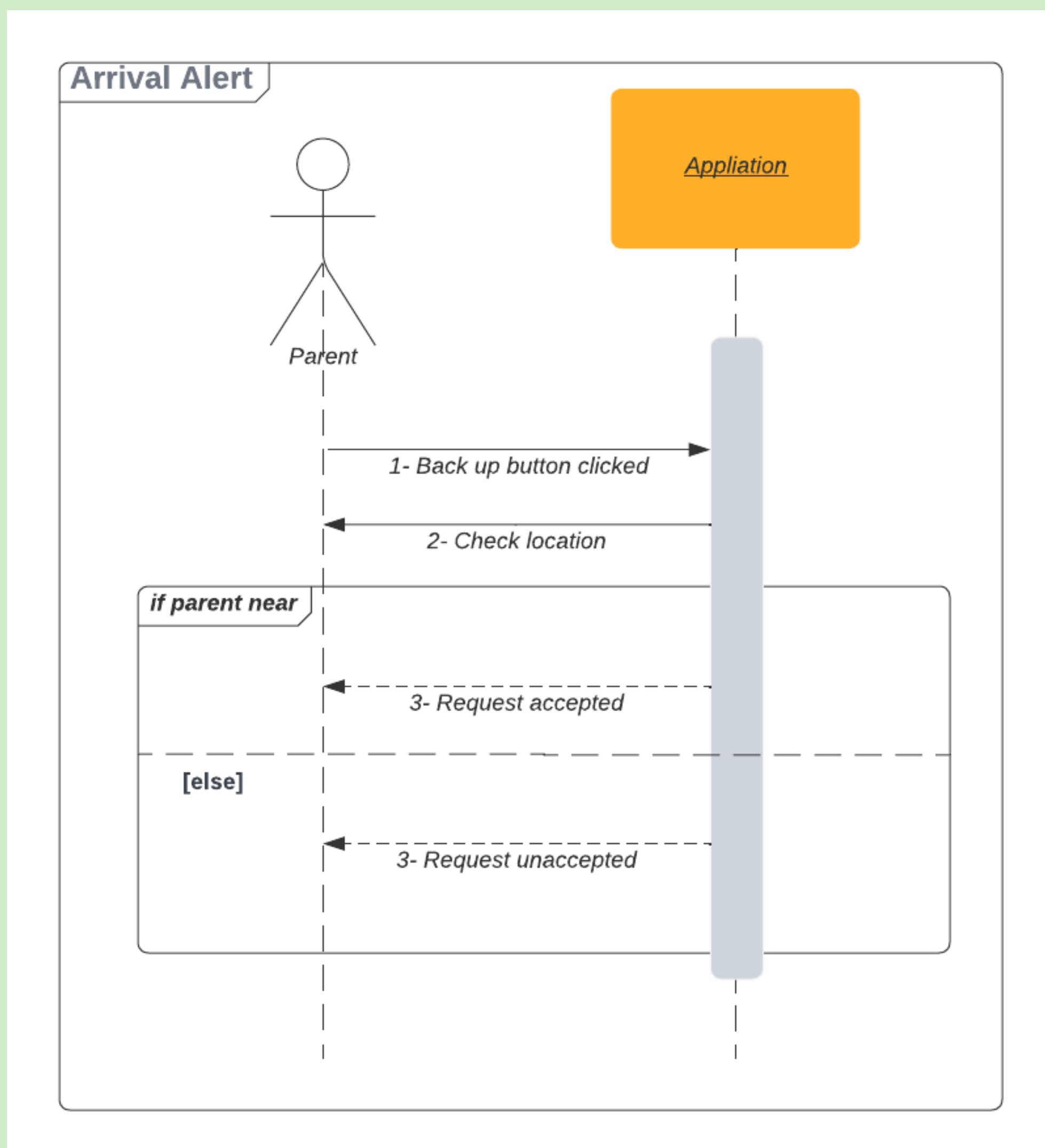
Sequence diagram



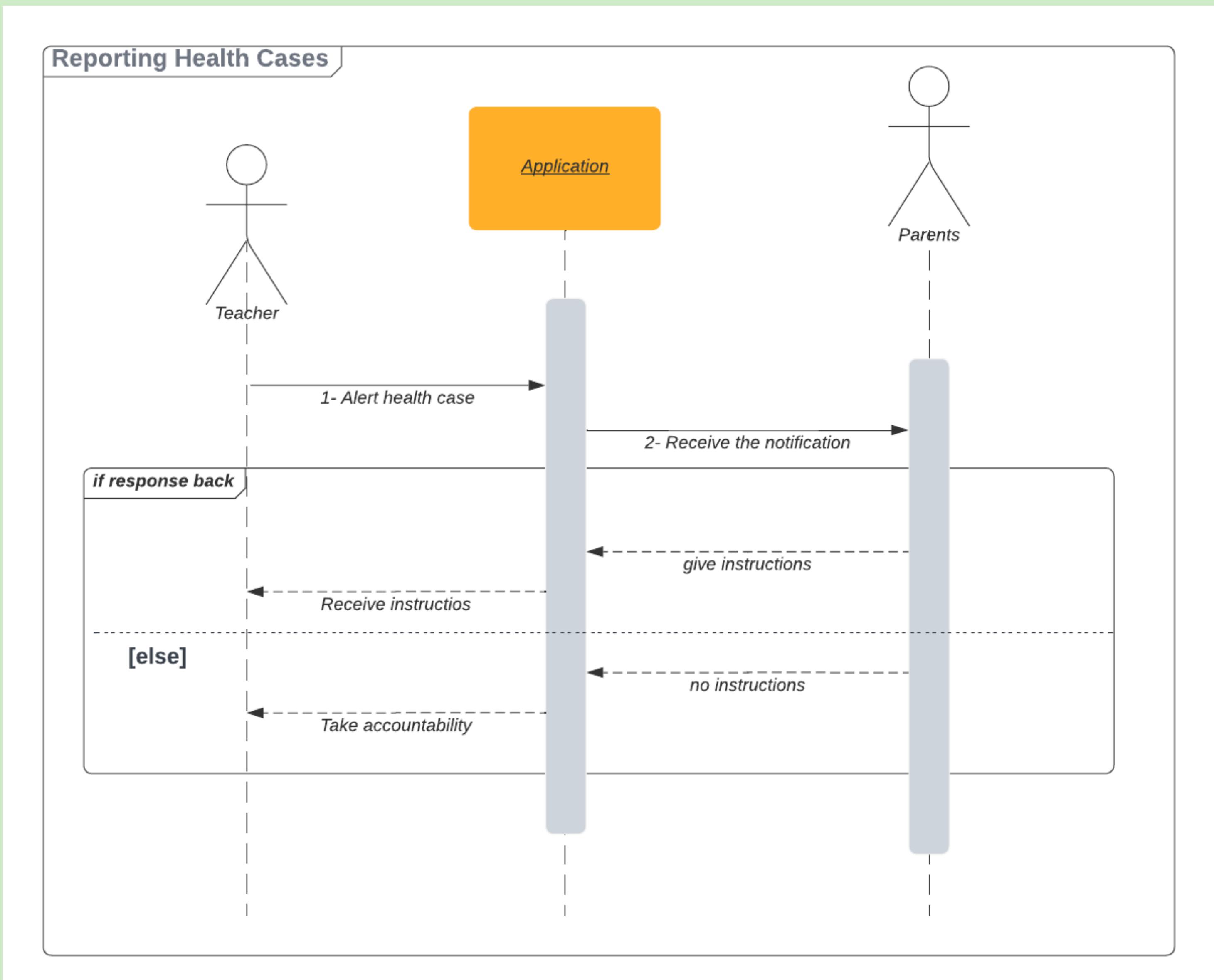
Sequence diagram



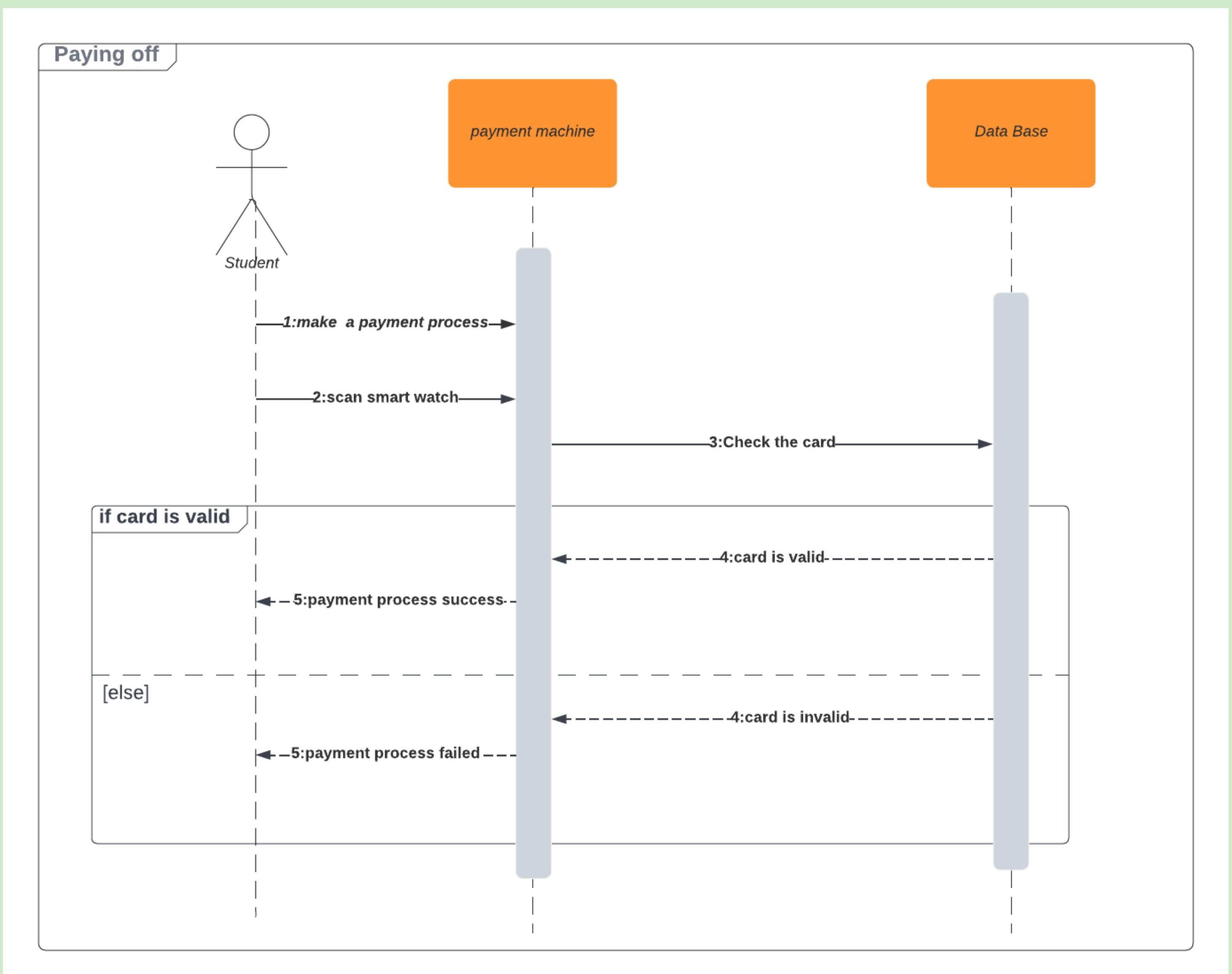
Sequence diagram



Sequence diagram

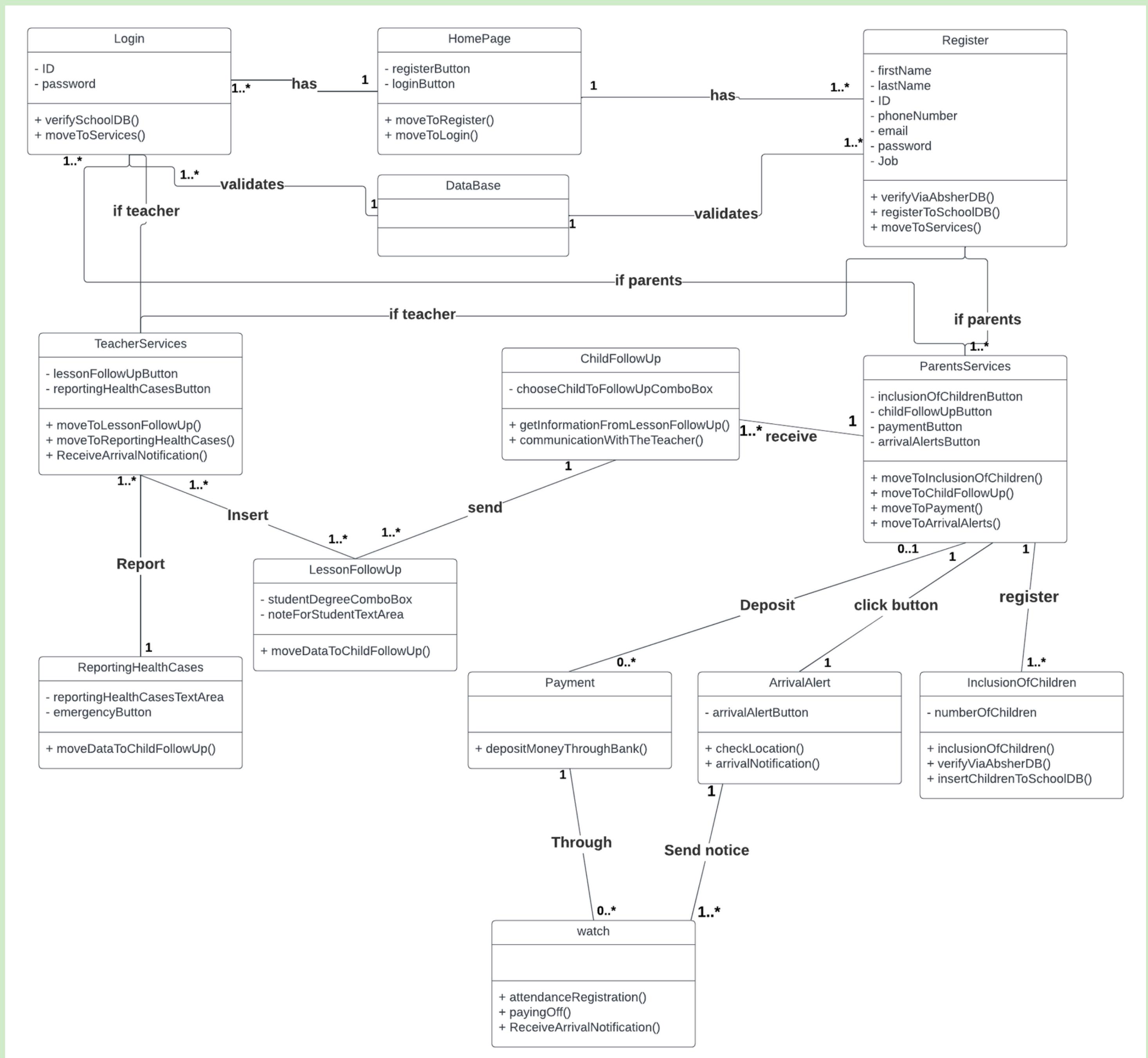


Sequence diagram



Lab 9

Class diagram



Class diagram

Our application takes an interest in following our kids' journey in education, whether it's within the school's walls or outside. You don't need to be in the academic field to ensure the best and most effective outcome for your child.

The parent gets four different benefits:

1: Inclusion of children

where a parent gets to add their kid to the application system, which needs verification from Absher.

2nd-child follow-up

A parent gets to keep track of their child's health and academic status, which can be discussed further with the school through a live chat through the application.

3-payment

The parents get to deposit and track their kids' payments through the whole school day to buy breakfast, etc.

4-arrival alert

The application system shows a button for the parent to press whenever they're around the school area to alert and confirm the child, and the teacher is the parent.

The teacher, on the other hand, gets to benefit.

1 lesson follow-up

Throughout the course, the teacher grades and adds the necessary notes for the students and their parents, with a live chat if needed directly to the parent.

reporting health cases

The teacher can report if an emergency takes place.

The watch has three different settings for the student. where a student can add their attendance, buy, and receive notifications when their parent is on their way to pick them up.

Suggestions

- 1- The focus may be on increasing the features of the smartwatch, such as alerting assignments or alerting exam dates.
- 2- There is a lot of demand for the program due to its usefulness that serves the child and parents in facilitating their lives in terms of education, noting that we are in a time where our dependence on technology is considered great, and every time after some time our dependence on it increases.
- 3- In conjunction with the development of the program, a new version of the watch may be updated.

Conclusion

in conclusion we genuinely believe this application could one day be implemented into school systems to ensure the best outcome for generations to come.
the development of advanced tech for a higher civilization and a higher educational standard takes place step by step, but we believe our application propels us thousands of steps forward in the process.

Lab'2

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- Interview with the Student's Parent
- Write questions for the student's parent section in particular and write some questions for all sections
- Design and content review
- Interview analysis

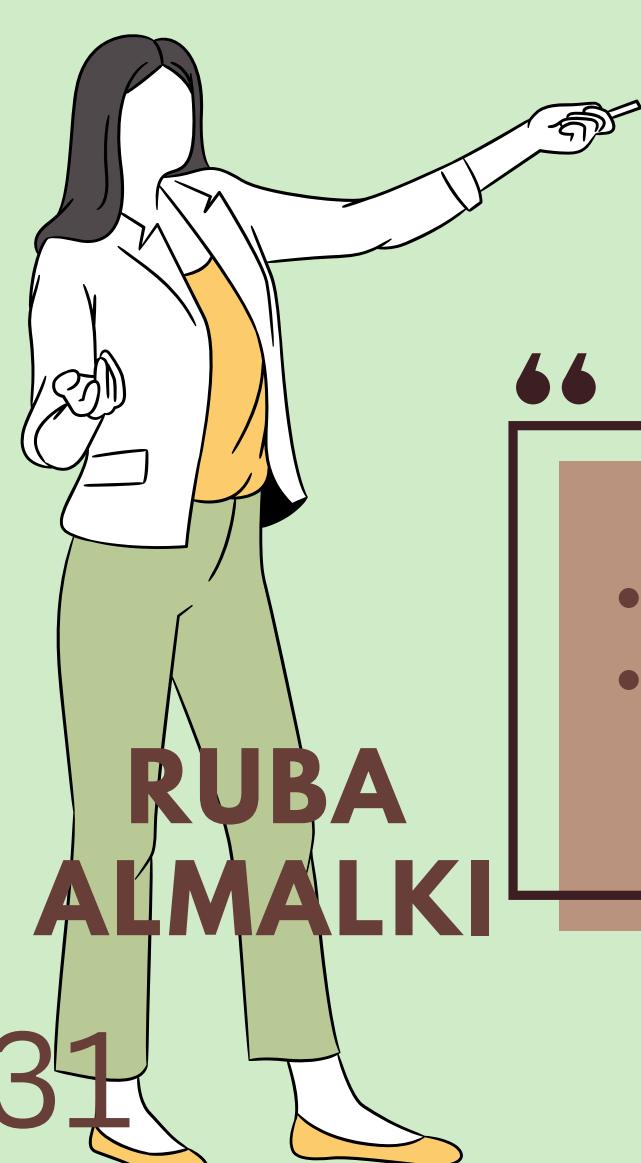


**RAWAN
ALMALKI**

- Interview with Student
- Write questions for the Student section

**DHAY
ALHARBI**

- Interview with School Manager
- Write questions for the school manager section



**RENAD
ALZUMAY**

- Interview with Health Supervisor
- Write questions for the health supervisor section

**RUBA
ALMALKI**

- Interview with Teacher
- Write questions for the Teacher section



Lab'3

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- Requirements review
- Design and content review



**RAWAN
ALMALKI**

- Motivation
- Considerations

**DHAY
ALHARBI**

- Content
- Findings



**RENAD
ALZUMAY**

- The problem
- Cost & schedule estimates

**RUBA
ALMALKI**

- Goals of the Project
- Recommendation or proposed solution

Lab'4

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- “
- Scope Objectives of “new system”
 - Recommended Alternative of the course of Action
 - Design and content review
- ”



**DHAY
ALHARBI**

- “
- Potential Changes in the Organization
 - Recommended Alternative of the course of Action
- ”

**RAWAN
ALMALKI**

- “
- Alternative Solutions
 - Cost and benefits of Alternatives
 - Recommended Alternative of the course of Action
- ”



**RUBA
ALMALKI**

- “
- Software impacts
 - Recommended Alternative of the course of Action
- ”

**RENAD
ALZUMAY**

- “
- Problem Definition
 - Cost and benefits of Alternatives
 - Recommended Alternative of the course of Action
- ”

Lab'5

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- Business Event List
- Design and content review



**RAWAN
ALMALKI**

- The scope of the work (b Content)

**DHAY
ALHARBI**

- Stockholder definition
- The scope of the work (a)



**RENAD
ALZUMAY**

- The scope of the work (b Motivation)

**RUBA
ALMALKI**

- Context diagram

Lab'6

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**



- “
- Functional requirement
 - Non-Functional requirement
 - Design and content review

**RAWAN
ALMALKI**

- “
- Functional requirement
 - Non-Functional requirement

**DHAY
ALHARBI**

- “
- Functional requirement
 - Non-Functional requirement



**RENAD
ALZUMAY**

- “
- Functional requirement
 - Non-Functional requirement

**RUBA
ALMALKI**

- “
- Functional requirement
 - Non-Functional requirement

Lab7

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- Use Case (Modeling + Description)
- Design and content review



**RAWAN
ALMALKI**

- Use Case (Modeling + Description)

**DHAY
ALHARBI**

- Use Case (Modeling + Description)



**RENAD
ALZUMAY**

- Use Case (Modeling + Description)

**RUBA
ALMALKI**

- Use Case (Modeling + Description)

Lab'8

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- Arrival Alert Sequence diagram



**RAWAN
ALMALKI**

- Inclusion of Children Sequence diagram

**DHAY
ALHARBI**

- Paying off Sequence diagram



**RENAD
ALZUMAY**

- Child Follow Up Sequence diagram

**RUBA
ALMALKI**

- Reporting Health Cases Sequence diagram

Lab'9

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- “
- Drawing class diagram
 - Design and content review



**DHAY
ALHARBI**

- “
- Drawing relationships

**RAWAN
ALMALKI**

- “
- Drawing relationships



**RENAD
ALZUMAY**

- “
- Drawing relationships

**RUBA
ALMALKI**

- “
- Drawing relationships

Final Project

Tasks performed by each member

**MODI
ALELAYAN
(LEADER)**

- “
- Review Class Diagram
 - Design and content review



**DHAY
ALHARBI**

- “
- Review Functional and Non-Functional Requirement

**RAWAN
ALMALKI**

- “
- Review Sequence Diagram



**RENAD
ALZUMAY**

- “
- Review Use Case Diagram

**RUBA
ALMALKI**

- “
- Writing Suggestions and Conclusion