

Software Requirements Specification (SRS) Document

Project Title : Mobile Interface for Leave Requests / Approvals

Team Number : 15

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Brief problem statement :

The current IMS portal does not have a mobile version, which restricts users from accessing crucial features like Profile details, Bank details, Leave Application requests, Attendance, and Transcript, on their mobile devices. This limitation adversely affects user experience and convenience. Consequently, there is a necessity to create a specialized cross-platform mobile application for IMS, aiming to enhance accessibility and streamline the effective management of essential tasks via mobile devices.

System requirements:

1. **Operating System:** Platform-independent.

- Example: Android and iOS cross-platform

2. **Software Dependencies:** The following technologies will be used in the course of development of the project.

- **Programming Languages:** JavaScript
- **Frameworks and Libraries:** React-Native Elements (<https://reactnativeelements.com/>) for styling, React-Native Navigation (<https://reactnavigation.org/>) for navigation.
- **API:** IMS IIITH web server APIs.
- **Stores:** Android store and iOS store.
- **Development Environment:** Visual Studio Code for development and Android studio for deployment and testing.
- **Version Control :** Git for version control, backed up in a GitHub (course) repository and a GitLab (client) repository

Users profile

IIIT Students :

- **Mode of Usage :** IIIT students can use the mobile application to apply for leaves and status tracking of applied requests. They can check their attendance and transcript. Students will be able to view their profile and upload and view bank details.

Faculty/Staff :

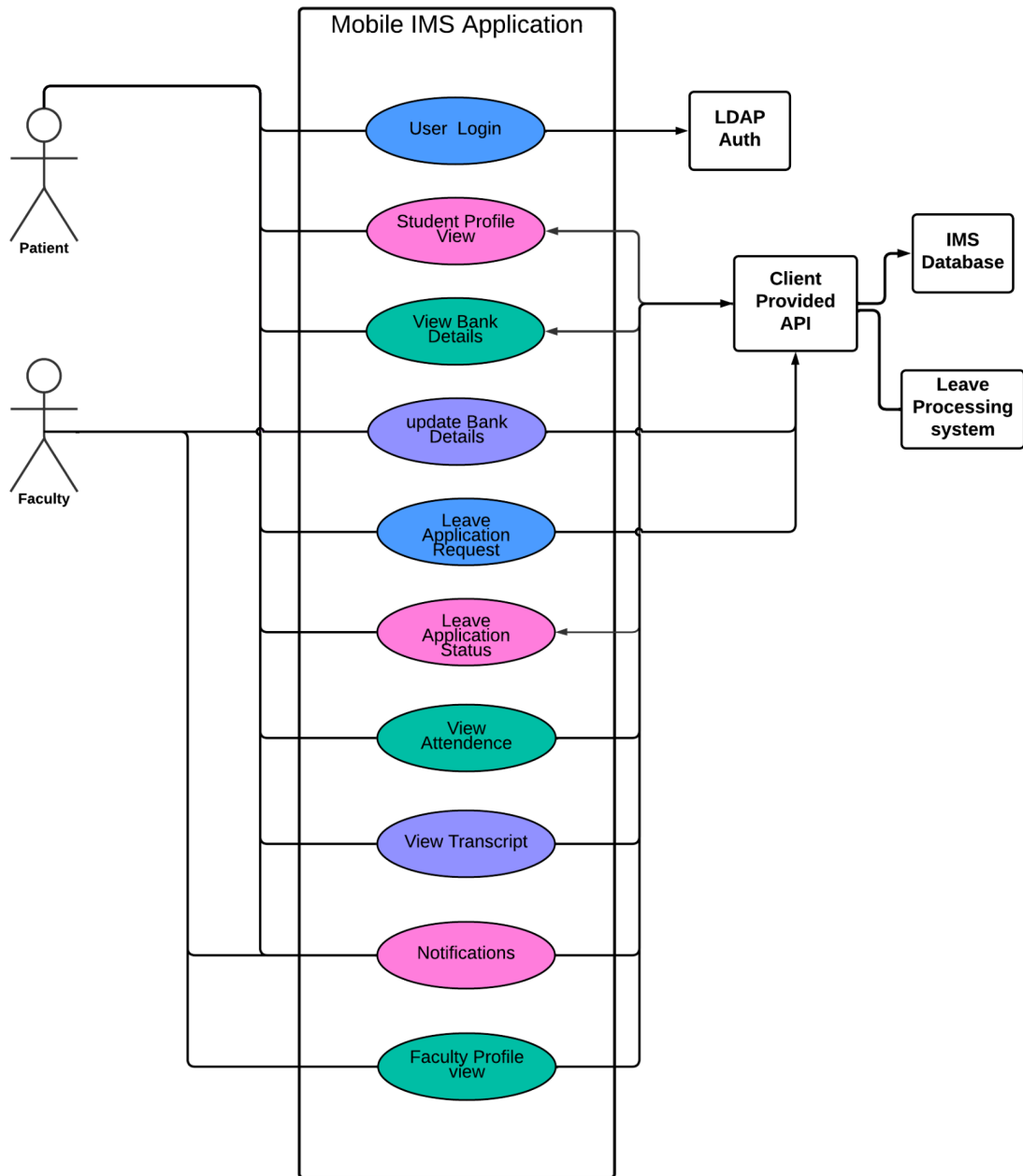
- **Mode of Usage :** IIIT faculty/staff can use this application to view their profile details as and when needed.

Feature requirements (described using use cases)

No.	User Case Name	Description	Release
1.	User Login	The user login use case enables students and faculty/staff to securely access and manage their academic and institute information within the system. The login ensures seamless and protected user experience.	R1
2.	Student Profile View	“View Profile” functionality allows users to review and access their personal information. They navigate through their profile and ensure that information is accurate and up-to-date.	R1
3.	View Bank Details	Students will be able to view their bank details they have uploaded. The Institute requires students to upload their bank details and hence this is an important use case.	R1
4.	Update Bank Details	The purpose of this is to enable students to securely and conveniently update their bank details through the mobile app, ensuring accurate and up-to-date information for seamless transactions.	R1
5.	Leave Application Request	The leave application process allows students to formally request for leaves for reasons like medical issues, travel for events, sports etc. The request is then forwarded for further processing according to the process described by the institute.	R1
6.	Leave Application Status	Students can view the approval status of their leave requests.	R2
7.	View Attendance	Students can view their attendance in the courses they are attending. They will be able to see how many absences they have so far in each course and how many they can take.	R2
8.	View Transcript	Students can view their transcript showing their grades in their courses over the various semesters they have been in the institute. It also shows their SGPA and CGPA over the semesters.	R2
9.	Notifications	Students will receive notifications when they submit their leave request or bank details applications.	R2
10.	Faculty/Staff Profile View	Faculty/Staff can use the application to view their profile details. They will be shown the details they would have provided to the institute for a convenient review whenever they may need.	R2

Use case diagram

link: <https://lucid.app/documents/view/8b3118f9-6485-4527-9a5a-07f5e9a5c09a>



Use case description :

Use Case Number:	UC-01
Use Case Name:	User Login
Overview:	The user login feature enables students and faculty/staff to securely access and manage their academic and institute information within the system. It serves as the primary entry point offering a secure and personalized access to a variety of functionalities.
Actors:	Students and Faculty/Staff and Institute User Authentication
Pre condition:	User should be valid and already registered with their details in the institute's database
Flow:	<ol style="list-style-type: none">1. The user is asked to enter their username and password.2. User enters the valid details and clicks on the login button.3. If details are correct, they will be redirected to the dashboard.
	<p>Alternate flow 1:</p> <ol style="list-style-type: none">1. If the user entered incorrect details they are asked to enter correct details.2. Repeat 1 till correct details have been entered. Also display forgot password and reset password links.3. User enters the correct details. <p><u>Post condition:</u> User is redirected to the dashboard.</p> <p>Alternate flow 2:</p> <ol style="list-style-type: none">1. User selects the forgot password option and is redirected to its webpage.2. User follows instructions as per the webpage and gets a new password.3. User is shown the login page again. <p><u>Post condition:</u> User is at the start of the main flow.</p> <p>Alternate flow 3:</p> <ol style="list-style-type: none">1. User selects the reset password option and is redirected to its webpage.2. User follows instructions as per the webpage and gets a new password.3. User is shown the login page again. <p><u>Post condition:</u> User is at the start of the main flow.</p> <p>Alternate flow 4:</p> <ol style="list-style-type: none">1. At any step in the main flow (or any of the above alternate flows), the device is not connected to the IIIT Network.2. Then the student is taken to a page telling them to reconnect to the internet.3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	If credentials are correct, the user gets authenticated as a student or faculty/staff, and will be redirected to the dashboard.

Use Case Number:	UC - 02
Use Case Name:	Student Profile View
Overview:	“View Profile” functionality allows users to review and access their personal information. They navigate through their profile and ensure that information is accurate and up-to-date.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app and is currently at the dashboard.
Flow:	<ol style="list-style-type: none"> 1. Students tap on either of two options for profile details: General Information and Address Details. 2. Students are redirected to the corresponding page.
	<p>Alternate flow:</p> <ol style="list-style-type: none"> 1. On choosing a profile option, at that moment the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The student is shown their profile details (if some details are not present in the database they are shown blank).

Use Case Number:	UC-03
Use Case Name:	View Bank Details
Overview:	Students will be able to view their bank details they have uploaded. The Institute requires students to upload their bank details and hence this is an important use case.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile application. They must be at the dashboard page.
Flow:	<ol style="list-style-type: none"> 1. Students tap on the "Bank Details" option. 2. They will be redirected to the Bank Details page.
	<p>Alternate flow :</p> <ol style="list-style-type: none"> 1. On choosing the Bank Details option, at that moment the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen..</p>
Post Condition:	The student's bank details will be displayed (if some details are not present in the database they are shown blank)

Use Case Number:	UC-04
Use Case Name:	Update bank details
Overview:	The purpose of this use case is to enable students to securely and conveniently update their bank details through the mobile app, ensuring accurate and up-to-date information for seamless transactions
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app. The user should either not have uploaded Bank Details or have applied but not gotten the application approved yet. They should be at the Bank Details page.
Flow:	<ol style="list-style-type: none"> 1. Student taps on the Edit details button. 2. They are shown the fields they can edit, and the fields they cannot edit are blocked. 3. Students edit the details they wish to edit and press "Save Changes".
	<p>Alternate flow :</p> <ol style="list-style-type: none"> 1. At any step in the main flow, the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The application is sent to the for approval and the student is taken to the Bank Details page.

Use Case Number:	UC-05
Use Case Name:	Leave Application Request
Overview:	The leave application process allows students to formally request for leaves for reasons like medical issues, travel for events, sports etc. The request is then forwarded for further processing according to the process described by the institute.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app. They should be at the dashboard page.
Flow:	<ol style="list-style-type: none"> 1. The student taps on the Request Leave button and is redirected to the respective page. 2. They follow instructions on the page and enter all valid details and upload required documents. 3. They then press the Submit button. 4. The request will be sent to the concerned authorities.
	<p>Alternate Flow:</p> <ol style="list-style-type: none"> 1. At any step in the main flow, the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The Leave request is sent to the concerned authorities for approval.

Use Case Number:	UC-06
Use Case Name:	Leave Application Status
Overview:	Students can view the approval status of their leave requests.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app. They must be at the dashboard.
Flow:	<ol style="list-style-type: none"> 1. Student taps on the Leave Status button and is redirected to that page. 2. Here they can view their leave applications.
	<p>Alternate Flow:</p> <ol style="list-style-type: none"> 1. At any step in the main flow, the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The student can see the details of their leave requests, including status of application, date applied, start and end date of the leave, reason, the person it was applied to.

Use Case Number:	UC-07
Use Case Name:	View Attendance
Overview:	Students can view their attendance in their courses. They will be able to see how many absences they have so far in each course.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app. They must be at the dashboard.
Flow:	<ol style="list-style-type: none"> 1. Students click on the “View Attendance” option. 2. They are redirected to the corresponding page. 3. They select an academic year and semester. 4. They are shown a list of the courses they had during that semester. 5. They select the course for which they wish to view attendance.
	<p>Alternate Flow:</p> <ol style="list-style-type: none"> 1. At any step in the main flow, the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The student is shown a table containing the dates the chosen course had classes, and whether they have been marked present or absent for it.

Use Case Number:	UC-08
Use Case Name:	View Transcript
Overview:	Students can view their transcript showing their grades in their courses over the various semesters they have been in the institute. It also shows their SGPA and CGPA over the semesters.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app. They must be at the dashboard.
Flow:	<ol style="list-style-type: none"> 1. The student taps on the "Transcript" option in the dashboard. 2. They are then redirected to the respective page. 3. They choose an academic year and semester.
	<p>Alternate Flow:</p> <ol style="list-style-type: none"> 1. At any step in the main flow, the device is not connected to the IIIT Network. 2. Then the student is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The student is shown the grades they received in the courses they had in the chosen semester, the total credits for each course along with the SGPA for and cumulative CGPA till that semester.

Use Case Number:	UC-09
Use Case Name:	Notifications
Overview:	Students will receive notifications when they submit their leave request or bank details applications.
Actors:	Students
Pre condition:	The student must be successfully authenticated and logged into the mobile app. They must have filled out either a Leave Request or the Bank Details application.
Flow:	<ol style="list-style-type: none"> 1. The student taps on the submit button 2. They receive a notification stating their application has successfully been submitted
	<p>Alternate Flow:</p> <ol style="list-style-type: none"> 4. At any step in the main flow, the device is not connected to the IIIT Network. 5. Then the student is taken to a page telling them to reconnect to the internet. 6. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The student is at the login screen.</p>
Post Condition:	The student can see the notification in their phone, stating that their application has been successfully submitted.

Use Case Number:	UC-10
Use Case Name:	Faculty/Staff Profile View
Overview:	“View Profile” functionality allows users to review and access their personal information. They navigate through their profile and ensure that information is accurate and up-to-date.
Actors:	Faculty/Staff
Pre condition:	The faculty/staff must be successfully authenticated and logged into the mobile app and is currently at the dashboard.
Flow:	<ol style="list-style-type: none"> 1. Faculty/Staff taps on either of two options for profile details: General Information and Address Details. 2. Faculty/Staff is redirected to the corresponding page.
	<p>Alternate flow:</p> <ol style="list-style-type: none"> 1. On choosing a profile option, at that moment the device is not connected to the IIIT Network. 2. Then the faculty/staff is taken to a page telling them to reconnect to the internet. 3. If connection to IIIT network is restored, they are taken to the login page and their last action is ignored. <p><u>Post Condition:</u> The faculty/staff is at the login screen.</p>
Post Condition:	The Faculty/Staff is shown their profile details (if some details are not present in the database they are shown blank).