Project Proposal
Software Engineering CS-360

Issues Logging System for Allied Bank Limited

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Submitted in partial fulfillment
Of the requirements of a
Software Engineering course project

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1.0 Overview

1.1. Purpose, Scope and Objectives

The purpose of the project is to develop a prototype for a mobile application that can be employed at Allied Bank Limited to report issues with company provided electronic devices primarily. If possible, we plan to add the functionality of logging in requests for new devices that will later be approved by authorized personnel.

Currently, the method deployed is similar to the requirements of the application being built, except that it is a Webpage. This inhibits optimal processing of the entries logged onto the system since the platform is not very mobile. We hope to speed up the rate at which logged concerns get addressed and make the system more accessible with our product.

The intended user group is all the employees of the bank, who can report concerns, as well as a team of technicians, who will deal with the repairs. Our mobile application will be used at every branch of the bank as well as in the working environment of the technical staff. We aim to develop a cross platform application that can easily be used on both iOS and Android Mobile Devices by all the personnel involved. This application will be linked to a local server and a dummy database initially and will be later moved on to a server at ABL, subject to their approval.

1.2. Project description

Currently, when an employee at Allied Bank Limited runs across a technical error in their systems, like hardware fault, the employee will log onto a website where he records and uploads his concerns. Then, a relevant technician takes up the job and resolves the

concern. The last step is the final approval of satisfaction from the employee who drafted the issue. Our application plans to carry out the same tasks in the same order except that the platform will be on a mobile device.

Our application will deal with four different kinds of technical problems: Hardware, Software, Communication and General. The categories and subcategories are listed below:

Area	Category	Subcategory
IT-Support	**Hardware**	Hard disk
		Mother Board /RAM
		Key Board
		Mouse
		LCD/ Monitor
		Printer
		Cell Phone/ Tablets
		IP Phone
		Laptop Battery/ Charger
		Biometric Device
		Network card / VGA card
		Power Supply
		Scanner
		USB Ports
		Others
	Software	New Operating System Installation
		Application Installation
		IP Conflict/ Config.
		Printer Configuration
		IP Phone Configuration
		New PC Configuration
		Mobile Phone /IPAD

		Java Installation
		Browser Up Gradation
		Driver Installation
		Adobe Reader/PDF
		Cell Phone/ Tablets email configuration
		M.S Office Issue
		Mozilla Firefox Settings/Configuration
		Browser Proxy settings
		Web Mail Issue
		Browser Chache
	Communication	Network Issue
		WIFI Access
		IP/ MAC Address Binding
		IP Phone Voice Distortion
		LAN Cable
		Multimedia.
		Audio/ Video Call
		Others
		DNS Issue
	General	General Meeting
		Audio/ Video Call
		Others

The application we plan to develop is divided into two parts, the frontend and the backend. The frontend will be a mobile app where the user will login in using his Allied Bank logging credentials. The user will then select their branch from a given list of branches and also select appropriate category and subcategory of the issue from a given list of options from a drop-down menu and finally fill the subject and relevant description fields and upload any attachments required. All the submitted issues will be updated on

the database in the backend. When a relevant technician of the given area signs in, they will be able to view all issue listings and can take up an issue. If the issue is not been taken up by any technician within a period of two days, it will be flagged and notified to the higher authorities, allowing them to intervene.

The skeletal code required to build the frontend of our app is available online on Ionic frameworks website repository. We will primarily be using such code to create components like buttons and dropdowns of our app. However, the functionality behind those buttons will be coded by us.

In the backend development, every form submission will run a SQL query which will update the database. As discussed with ABL, we will have the following relations (subject to changes):

- Role assigned to an employee
- Database of issues
- Relevant technicians and their location

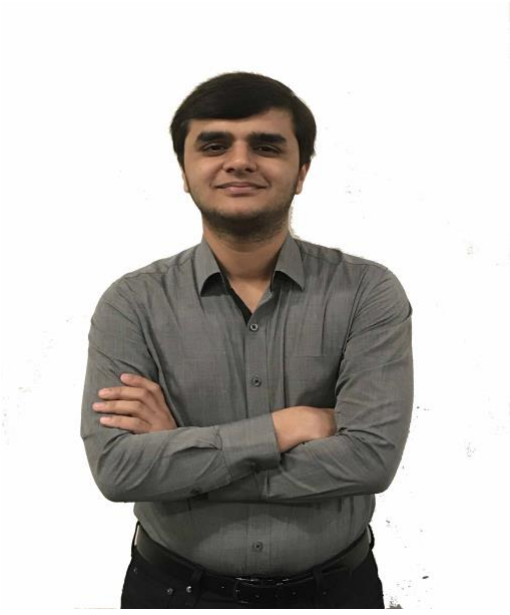
As far as data processing/analysis is concerned, we have the need for a database to store logs. Inputted concerns will be stored in the database along with a Status (Resolved/ Unresolved) field and the stored records can be outputted as well. Further, we can also use our database records to provide statistics about repairs using data exploration tools.

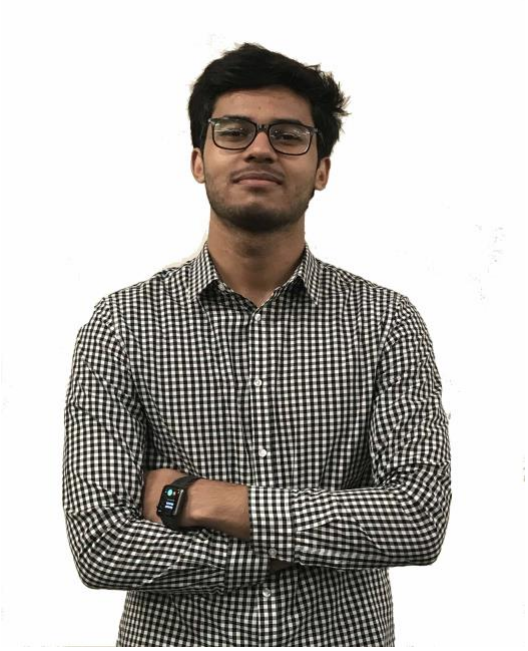
Allied Bank Limited is interested in our end product. My group members and I feel that ABL can provide us with a unique learning environment by being a very accurate representation of a professional client for us. We hope that working with ABL will give us the best hands-on experience of dealing with big companies as clients. We believe that

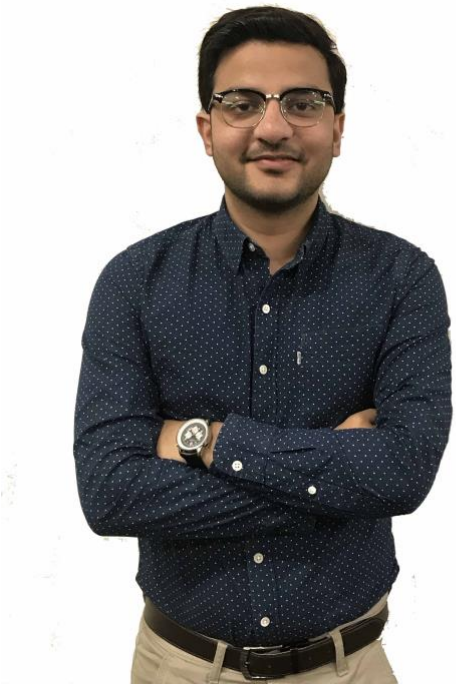
within the scope of this project, there is a lot for us to learn from our interactions to the bank and this is why we hope that our proposal will be accepted.

1.3. Team profile

Name: Maleeha Masood	
ID: 21100217	
Email: 21100217@lums.edu.pk	
Interests and strengths: Organization and Leadership, Documentation, Data Analysis Mathematics, Networks, Computer Programming.	

Name: Malik Ali Hussain	
ID: 21100291	
Email: 21100291@lums.edu.pk	
Interests and strengths: Programming, Management, Cryptography, Algorithms, Application development.	

Name: Aadam Nadeem	
ID: 21100190	
Email: 21100190@lums.edu.pk	
Interests and strengths: Networks, Documentation, Computer Design and Photoshop, UI/UX, Work Management.	

Name: Muhammad Raheem Zafar	
ID: 21100312	
Email: 21100312@lums.edu.pk	
Interests and strengths: Data Analytics, Network Theory, Exploratory Data Analysis, Team Management.	

Name: Shahrukh Kemall	
ID: 21100326	
Email: 21100326@lums.edu.pk	
Interests and strengths: Databases, Software Design, Networks, Algorithm Theory, Web and App Development, Documentation.	

1.3.1 Expertise in a specific tool

Shahrukh Kemall: Adobe Dreamweaver CC

All: Anaconda3

1.4. Assumptions and Constraints

Assumptions: The project assumes that the framework of the Issue Logging System is already set by our client and the task we have to perform is simply to convert the desktop web page to a mobile phone application. Another assumption that we are making is that the employees would not be making a new account on our application, instead they will be using their ABL login details once they are authorized by the concerned person in hierarchy. Next, we will be provided with the structure of the database which we will use to develop our dummy database that will hold dummy employee records and logs.

Further, we assume that all required budgeting and resources needed to build this application, after approval from ABL, will be available to us. Also, we are assuming that we can build a server that is powerful enough to support thousands of users of our mobile applications.

Constraints: We have not been granted access to ABL's Main Database System. We believe this is a constraint because we will not get a chance to personally verify if our products work appropriately at a larger, country-wide scale. Further, the project has to be completed in the time period of approximately 3 months, which is why only the beta version of the app will be developed. We are using ionic as a platform to develop our application which might make our application slower than those built in other frameworks. Regardless, to build our cross-platform application, our research suggests that ionic is a good framework. Another constraint is our limitation to innovation for the reason that we have been instructed to follow the services already available on the existing ABL's issue logging website.

1.5. Project Deliverables

Deliverables include

- Software Project Proposal
- Requirement Specifications
- Design Specifications
- Development Plan
- Test plan
- Demo + source code
- Final document

- Final presentations

1.6. Budget Summary

Item	Men hours	Budget (700 PKR/ Hour)
Project Proposal	8	5600
Proposal Presentation	3	2100
SRS Document	15	10500
Design Specifications and development plan	10	7000
Development plan	5	3500
Development	100	70000
Test Plan	6	4200
Final report (testing results)	5	3500
Presentations	3	2100
Total	155	108,500

2.0 Project Organization

For this project, our first point of contact is Muhammad Sajid, Manager Software Development at Allied Bank Head Office Lahore. Over the last couple of days, our entire group has met him in person and ABL has agreed to let us work as a third party for developing their bank's mobile Issue Logging System application. He has also agreed to address any concerns we have regarding the specifications.

3.0 References

1. We had a template and flow chart of the existing ABL's ILS that we used for reference.
2. ABL's ILS website that is not accessible on networks outside of their own
3. Pakistan Citizen Portal App
4. Complaint Cell at Chief Minister's Office, Government of Punjab

5. www.ptcl.com.pk/complaintregister

4.0 Definitions

ABL: Allied Bank Limited

ILS: Issue Logging System