**Final Year Project Proposal**

**Mal Bazaar**

**Nurlan Nogoibaev 520560**

**Beknazar Jumabaev 520352**

**Supervisor:**

**Muhammad Qureshi**

**Department of Computer Science**

**School of Arts & Sciences, University of Central Asia**

**Naryn, Kyrgyz Republic**

**<Fall 2020>**

**1. Introduction**

With commerce getting more and more digitalized, especially escalated by the pandemic COVID-19, we plan to develop a mobile application Mal-Bazaar to allow people trade their cattle in online setting. This sector of informal and small enterprise has undergone challenges connected to the limited mobility during pandemic and excessive expenses with transportation. Thus, there have been taken few actions towards resolving this problem: they exploited social media means, but social media brings its own limitations.

Mal-Bazaar mobile application offers a platform for easy trade, communication, security and search. It will be developed initially for Android users for a wider coverage and planned to be tested by the end of February, 2021.

**2. Background and Literature Review**

1. Khawas, Chunnu & Shah, Pritam. (2018). Application of Firebase in Android App Development-A Study. International Journal of Computer Applications. 179. 49-53. 10.5120/ijca2018917200.

Since we have decided to use Firebase as the main tool to develop the backend, this article demonstrates advantages of using Firebase. It mainly focuses on how Firebase can better handle unorganized data like videos, pictures etc. more efficiently. This article may help us in understanding how we can exploit the features Firebase offers through a practical demonstration the author has included in the paper.

1. Sharma, Divya & Dand, Hiren. (2019). Firebase as BaaS for College Android Application. International Journal of Computer Applications. 178. 1-6. 10.5120/ijca2019918977.

This paper explains how Firebase can be used as a BaaS (Backend as a Service) through analyzing the MCCApp that utilizes Firebase features.

1. Xiaohan Yang. (2018). CAMPUS SECOND-HAND TRADING APPLICATION DESIGN AND IMPLEMENTATION

This article mainly presents the ideas and concepts behind interface design with a little focus on the data structures. Additionally, it demonstrates the major steps while developing a mobile application. We can make a great use of this article as it not only shows the requisites before developing a mobile applications, but also talks about the odds of taking certain decisions that majority of developers fall into.

**3. Problem Statement**

This project addresses the issues related to the mobility, expenses, communication, and security. Due to the pandemic, most of the people from the nearby villages could not travel to the bazaar in At-Bashy, cutting an only source of income. Second, although they manage to travel to the market, they risk not selling their product and wasting additional travel and market entrance expenses. Furthermore, there is a risk of earning no money due to the absence of requisite communication with the customer. And finally, customers risk buying the stollen product with no opportunity of meeting the seller again.

**4. Project Scope and Significance**

Mobile app Mal-Bazaar proposes a solution to several issues in the sector. First, it provides an easier mean for communication between the seller and customer. Second, sellers can easily post their product with user-friendly interface. Third, it also ensures the security protocols as it keeps the database of all the users. This, in turn, prevents illegal trade to take place.

**5. Aim and Objectives**

*<Write specific aim of the proposed project and identify the overall objectives that are likely to be achieved through implementations of the project.>*

First of all, our main aim of doing this project is to make life easier for the people who live in At-Bashy region. As, we mentioned before during quarantine the main bazar where people used to do cattle trading was closed and most of the people got financially suffered. First of all, using our mobile application people will have an opportunity to sell or buy a cattle in a much easier way. In addition, an app will have a detailed object description. Secondly, our app will help to economy some time and money. Thirdly, people would have a chance to use our app and make their business anytime (not only on Sundays). The last one, wide choices of cattle.

**6. Software and Hardware Details**

Software requirements: We are using java SDK and android studio IDE (with SDK bundle) for our application. In case of hardware requirements, highly recommended to use at least 4 GB ram. For processing power, Intel core i3 at least but as we have i5 we are ok. In addition, physical device for testing as it works faster and more powerful than pc emulator. Furthermore, if we talk about a platform, it is going to be mobile- based application. Finally, the project is going to be a customized one.

**7. Project Feasibility**

We are pretty sure that out proposed project would be viable in terms of its cost effectiveness and time. We have observed that there are not any other apps that people are using for cattle trading. Our app is going to be the first mobile application for people in At-Bashy region. Moreover, we are going to develop our project by taking into consideration people's suggestions and try to make our app easier to use, we will also try to add more features time by time. By now there are no any paid/commercial data sources but whenever we find out we will contact our supervisor.

**8. Project Plan**

1. Research about customers’ and market preferences by 28 September 2020

2. Designing the front-end and general look by 25 November 2020

3. Diving into back-end by 14 December 2020

4. Prototype by January 30 2021

5. Final App Design Development by March 8 2021

6. Core App development by April 12 2021

7. Testing the App by May 3 2021

8. Final Product by May 17 2021