Shahjalal University of Science and Technology

Department of Computer Science and Engineering



Title of the Project

Package and FnF Suggestion Generator

**Student:** *(Md Shah Ali, 2013337023, 4/2, Dept. of FET)*

**Supervisor:** *(Professor Dr. Mohammad Reza Selim, Professor, Dept. of CSE)*

3rd September 2018

Shahjalal University of Science and Technology

Department of Computer Science and Engineering



Title of the Project

Package and FnF Suggestion Generator

A Project submitted to the Department of Computer Science and Engineering,  
Shahjalal University of Science and Technology, in partial fulfillment of the requirements  
for the degree of B.Sc (2nd Major) in Computer Science and Engineering.

**Student:** *(Md Shah Ali, 2013337023, 4/2, Dept. of FET)*

**Supervisor:** *(Professor Dr. Mohammad Reza Selim, Professor, Dept. of CSE*

2nd September 2018

Recommendation Letter from Supervisor

This student, Md Shah Ali, whose project entitled “Package and FnF Suggestion Generator”, is under my supervision and agree to submit for examination.

Professor Dr. Reza Selim

Professor  
Dept. of CSE

# Qualification Form of B.Sc. (2nd Major) Degree

We hereby certify that this project titled “Package and FnF Suggestion Generator”, submitted by Md Shah Ali, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the requirements for the degree of B.Sc. (2nd Major) in Computer Science and Engineering.

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| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Head of the Dept.  Professor Dr. Reza Selim  Professor | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Chairman, Exam. Committee  Professor Dr. Reza Selim  Professor | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Supervisor  Professor Dr. Reza Selim  Professor |

# Abstract

The application “Package and FnF Suggestion Generator” is developed with an intention to help the people of Bangladesh choosing their best package, corresponding FnF and Super FnF and best operator for them based on their call log. One can easily activate his/her suggested best package and add suggested FnF and Super FnF with this app.

The application will detect the current package automatically by sending SMS or through USSD call, insert outgoing call log into database, read outgoing call log and compare current package cost with the other package cost for current call log and give you suggestion. For new outgoing call after installation, it will automatically insert this call details into database.

Keyword

App – Application

# Acknowledgement

Gratitude to god for blessing me with the chance to take CSE 2nd Major Degree and complete it without any trouble.

First, I would like to thank my supervisor Professor Dr. Reza Selim from the core of my heart for giving me the idea and guiding me to make this project come into live with his valuable time. I am really grateful to him. Thanks to my friends Ali Akbar Tanim, Md Saddam Hossain Shahed, for helping me with their android device as well as with their ideas for designing the interface of the application.

Finally, I would like to thank the authority and the teachers who have been working hard for creating such a chance to take CSE as 2nd Major for the students like us who has passion and love for CSE and dream for learning something beyond their respective subject.

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Introduction

This application is developed only for the people of Bangladesh to help them choosing best package, fnf numbers, operator. Different operators have different packages which have different advantages. Choosing the operator, package or fnf numbers that would be economical for them, may be a hard to find and sometimes may go wrong. Besides, adding fnf is painful for most people as they don’t know the procedure of adding fnf. This app will help people in these aspects. It will automatically detect user’s current operator. By reading the users call log, it will calculate the probable cost for each of packages of their current operator and suggest the package with least cost as well as the corresponding fnf numbers. Users will be able to activate suggested package and add fnf by clicking on the corresponding button. The app will automatically send sms for activating suggested package or adding fnf.

Background

* + 1. Background History

There are four operators in Bangladesh (Robi, Grameenphone, Banglalink, Teletalk) where each of them have several packages. Different packages has different advantages. For example, operators have different call rates for peak hour (12:00 am – 8:00 am), non-peak hour, same operator, different operator. People may be confused or wrong in the selection of their proper operator or package. Hence, their day to day calling expense may rise. Here the app will help people to select best operator, package, fnf for them by analyzing his/her call log and hence decrease the calling expense.

* + 1. Existing Works

An operator Robi has a web service that provides suggestion for best package based on questioning. As it is a web service it can’t read call log and the user has to answer questions which may go wrong. There doesn’t exist any other app like this app.

* + 1. Probabilities

Researching further, one can modify the app which will crawl data (call rate) from different operator’s website automatically.



Requirement Analysis and Specification

* + 1. Major Requirements

1. Suggesting best package for user’s current operator
2. Suggesting Super FnF and General FnF number of the corresponding package
3. Suggesting best operator and it’s best package
   * 1. Minor Requirements
4. Addition of “Activate” button to activate suggested package
5. Addition of “Add” button to add suggested fnf or super fnf number
6. Showing the cost details of other package so that user can compare themselves
7. Showing the cost details of other operator
   * 1. Requirement Gathering

Major requirements were gathered from my supervisor. Minor requirements were gathered from some of the users by asking them several questions like what additional feature they wanted. Some of them asked to add the cost details of other package and some asked for cost of other operator.

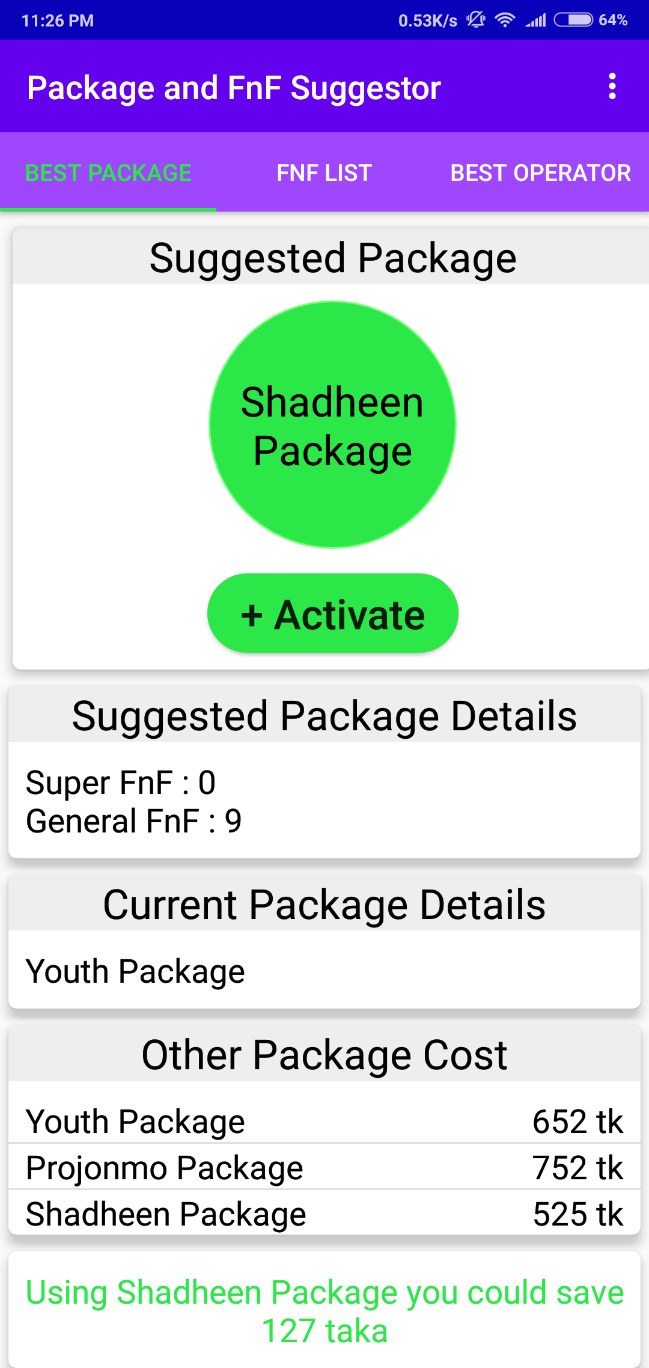
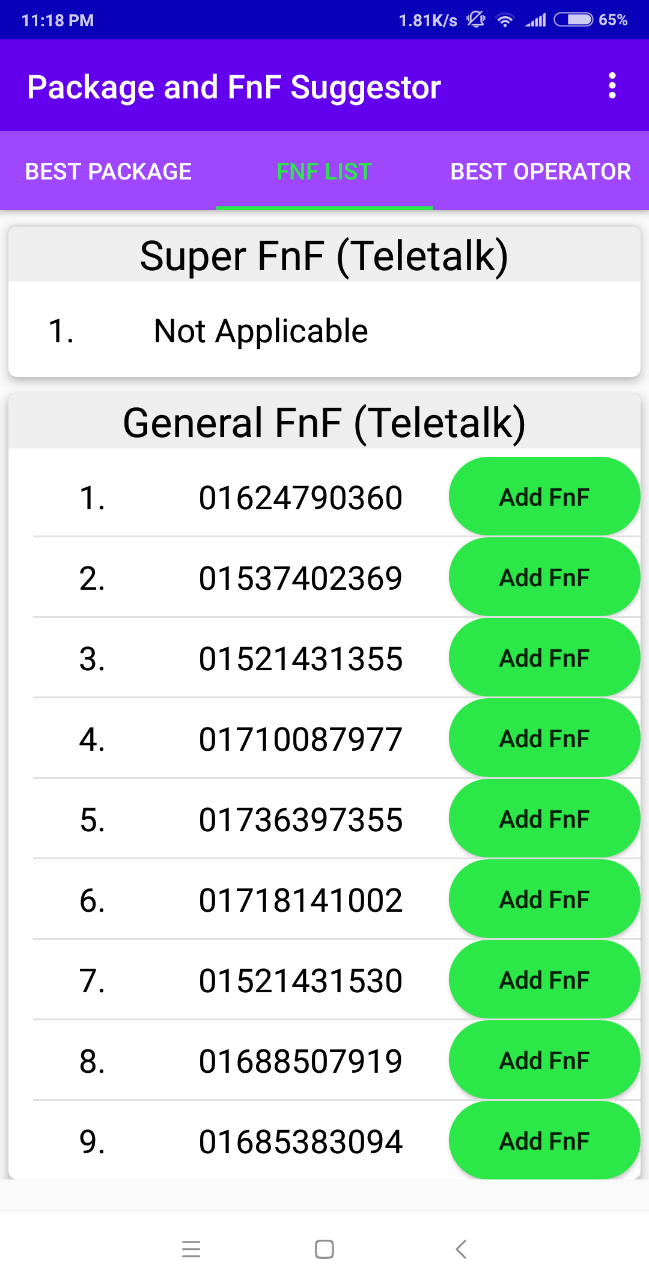
* + 1. Finalizing the design of the prototype

Figure 2: FnF Suggestion Page

Figure 1: Best Package Suggestion Page

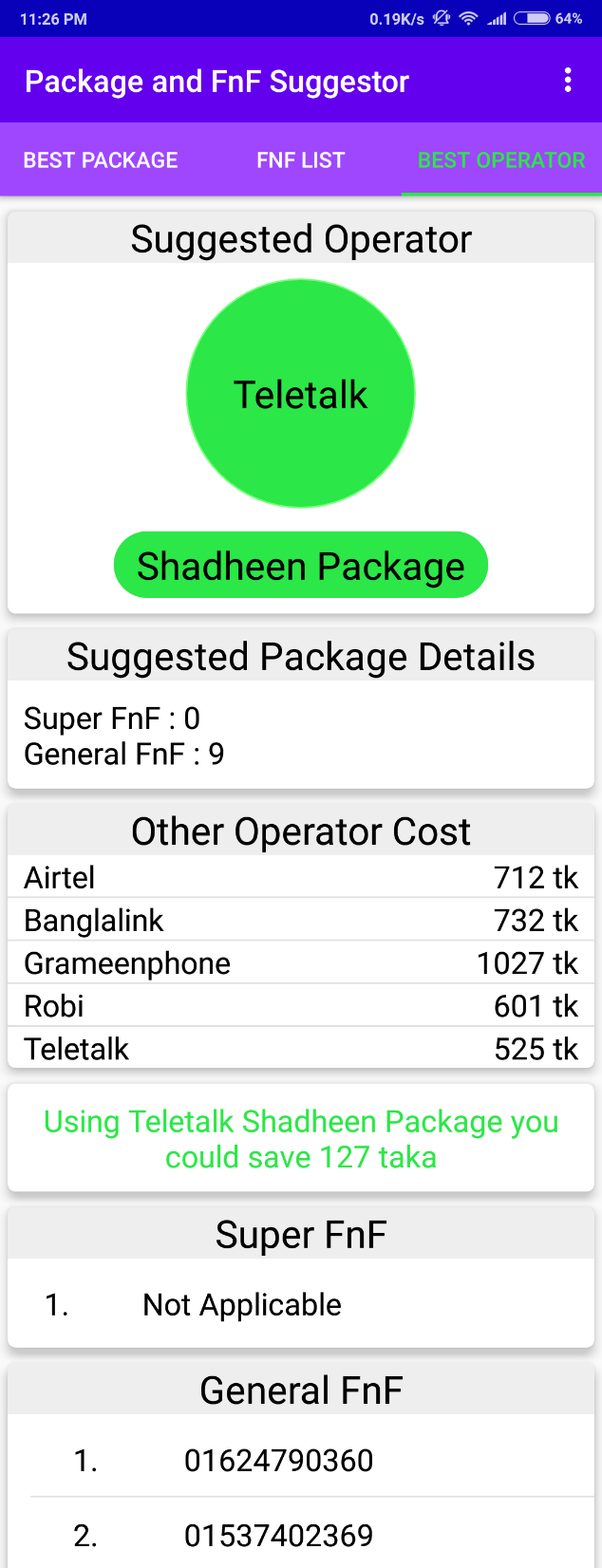
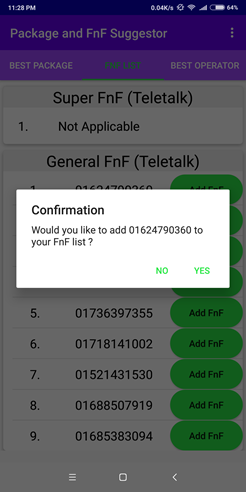
 

Figure 3: Confirmation Page for Adding FnF

Figure 4: Best Operator Page

* + 1. Use-Case Modeling

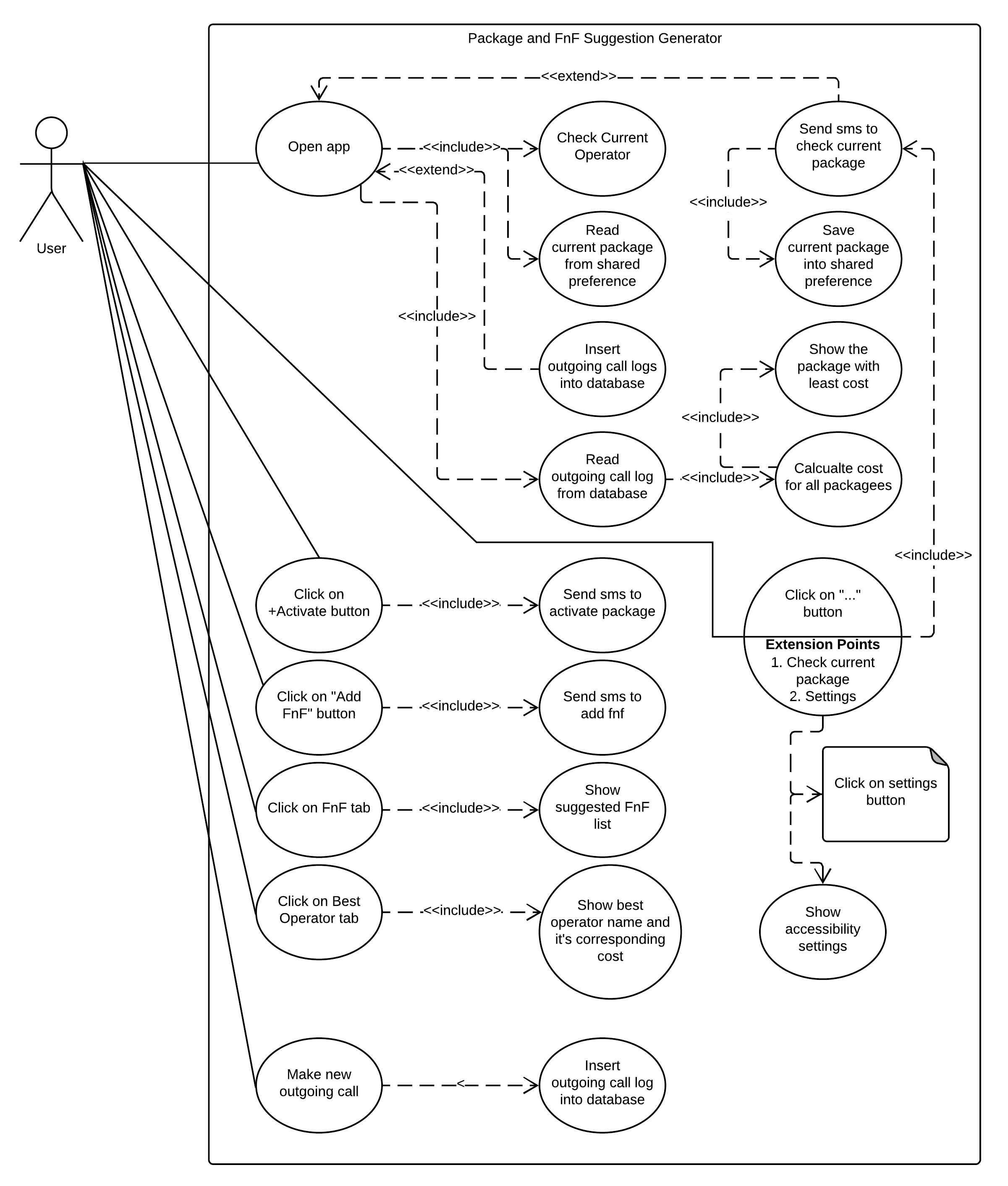


Figure 5: Use Case Diagram

* + 1. Constraints

The Banglalink operator doesn’t have any system to check package through sms. The airtel operator costs 0.5 taka to check package though sms but 0 taka through USSD call. The Teletalk operator doesn’t have any working service to check current packge. The Grameenphone operator sometimes take a long time to reply sms with current package.

Some of the devices like Mi doesn’t allow the app to read sms automatically. It is required to allow this option manually by the user.

* + 1. Assumptions and Dependencies

It is assumed that Sim Card remains same for all outgoing calls. Different recharge offers are not taken into count.

The whole application is dependent on the call rate found in the operator’s website.