

American International University-Bangladesh (AIUB)  
**Department of Computer Science  
Faculty of Science &Technology (FST)  
Spring 22 23**

**RAILWAY TRACKING AND ARRIVAL TIME PREDICTION**

Software Requirement Engineering

Sec: **A**

Project submitted

By

*SOURAV MANDAL (19-39568-1)*

*IN JAM IFTA KHAR NUR (20-43040-1)*

*SHOPNAMOY SAHA PRONOY (19-41199-2)*

*DIPUNKOR SARKER (18-37976-2)*

**Checked By Industry Personnel**

Name:

Designation:

Company:

Sign:

Date:

1. **PROBLEM DOMAIN**
   1. **Background to the Problem**

It has occurred many times when you have been waiting for someone to arrive at the railway station and you have no accurate information about train timetable and other things. Waiting for someone at a railway station may be an unpleasant experience, especially if you don't know the precise train time or other vital facts. Whether you're waiting for a loved one or a business acquaintance, the unknown of when they'll come may be stressful.

One of the most prevalent causes for not knowing exact train times is a breakdown in communication between the traveler and the person waiting at the station. Travelers frequently fail to notify their companions of any delays or changes in their trip arrangements.

And this can be very time consuming and irritating for every people. Its can be decrease our productivity.

* 1. **Solution to the Problem**

Therefore, we present to you this project on Arrival Time Prediction and Railway Tracking. Utilizing this system client 's can get the data about train timing, and is it on time or not, and other data. The system will keep track of the train's departure time from one station and transmit this information to the system at the other station, which will then display the train's departure time. If the system detects a train delay caused by a signal, it will display the train's timing in the next station and automatically update it.

This system has an admin module that enters train information and its timing. These details are sent to a server on the internet and retrieved by the system at other stations. Another system displays train information to viewers on the platform. The second system will obtain all of the data for all trains, but it will only display the data that pertains to a specific station and will automatically select that data.

For instance, The Kamlapur Station system will display train information if an administrator at Chittagong Station enters information about Kamlapur Station. The Cumilla Station system will not be affected. This system works like this: when a train leaves a station late, the administrator enters details about the departure and its time. This information is sent to an internet server in real time, retrieved from another system via the internet server, and the details are displayed on the screen. For viewers to view the information, this second system is installed in various stations. The administration will include information such as the train's departure from the station, anticipated arrival at the destination, and any schedule delays. Subscribing client applications receive real-time train schedule events from this project.

1. **SOLUTION DESCRIPTION**
   1. **System Features**

* List down the system functional requirements and quality attributes in each system feature that is necessary for the software.
  1. **UML Diagrams (Any 3 types)**
* Draw use-case diagram, activity diagram, class diagram, E-R diagram to describe the solution software you are proposing.

1. **Social Impact**

How society will be benefitted from your project idea.

1. **Development Plan with Project Schedule**

In your document you should provide proper development plan that presents in every SDLC including **project schedule.**

1. **Marketing Plan**

In your document you should provide proper marketing plan that will make your idea popular among the community so that you can make business. Marketing plan should have short term, long term and continuous plan.

1. **Cost and Profit Analysis**

In your document you should provide proper cost analysis including development and marketing cost. Then you can show profit analysis. Based on your profit analysis investors will be agreed to invest on your idea.

1. **Reference**

Put all the references you have used during the project work.