American International University-Bangladesh (AIUB)

Software Project 1

An Online Resource Management system Trackmee

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Declaration

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Approval

This web based Application titled **"Trackmee"** has been submitted to the following respected member of the board of Examiners of the faculty of Science and Information Technology in partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering on 10th January, 2017 and has been accepted satisfactory.

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PROJECT SUMMARY

It is SRS document for an online Resource management software Trackmee. Nowadays business organizations done most of their works through technological devices. They give electronic device like smart phone, laptops, tabs to their employees to perform their jobs properly. It is necessary to monitor these devices to ensure effective use of these devices and to fulfil the purpose for which the device is given to employees. Now to monitor and control if employees are using those devices properly for organizational purpose or not organizations need tracking tool. Trackmee will serve this purpose. It will effectively track those devices and help organizations to effectively monitor their employees. This document contains requirements Trackmee should contains.

Keywords: Trackmee, Admin Tracker, Usage Report, Personal Report, Employee Report

Chapter 1

PROJECT INITITION

1.1 Background to the problem

Present era is the era of technology. Everything is done using computer. Business organizations use computer to do their most of business stuffs. It includes hiring people, keeping track of loss/profit, keeping track of daily business activities and so on. It will be more cooperative for them if they can also manage the resources of their business online. They provide phone, laptop and other necessary devices to their employees when they join the organization. It will be very helpful for business organizations if they can know if their employees are misusing the resources or not. There is built in location tracking software in every electronic device. Using which organizations can track their employees during office hours. But there is no software that can ensure that employees are using the device for official work not for personal work. TrackMee is a software that will track data from device, generate a report, and send it to manager. Data includes browsing data, call logs and device logs. TrackMee will track data only during office hours. TrackMee will help business organizations in employee management in great extent.

1.2 Objective of this project

The objective of the project is to take out the best output from employees. It focuses more on how the project will contribute to the bigger picture of where the organization is going to manage a huge number of employees. It will also help to generate statistical data about the performance of each employee on basis of their work.

The organization will be focusing on efficient workers. To meet this need we plan to invest in various programs to achieve the goal. This is sometimes hard to define. In fact, different people see the problem in different ways. Unless the problem is clearly defined, articulated, documented and understood, there is not much chance of delivering a successful project.

The business problem is that they need to hire lots of employee. In addition, the company to do official works provides them with various devices. A business organization invest huge money on this resource. The main goal of this project is to utilize the resource in best manner through employees. In addition, it will help to create a good between employee and organization.

The impact of this project will eliminate misconception about working efficiency of an employee. Business problem is that we cannot track contact with each customer, which affects company-working procedure - particularly in busy schedule. We do not know how efficiently an employee is working until it is too late to do anything to resolve the problems.

By fixing the business problem, this will create a new way of tracking activities of employee in an organization and will maximize the working efficiency. It will help to gain much more profit and success. It is not only to track data but it will also help employee to be serious about their work. This will also help the organization to manage their employee in a comfortable manner. A successful implementation will cause all parties to be aware of who is doing what and will be able to reduce duplication of same work. It will create a better communication with employee, and hence a better relationship resulting in increased productivity.

1.3 Literature Review of Existing studies

“Trackmee” time tracker runs as software on your desktop or as a mobile app making it easy to track time. Once the time is tracked manager, can invoice clients, pay employees, and see in-depth reporting and much more.

It is time tracking for individual employ. It helps a business manager to keep track on how much time an employ has spent during the day on activities he chooses to track.

There is some similar application given below.

1.3.1 RESCUE TIME

Understand exactly how user spend time and attention, with no data entry. Get Smarter with Effortless Time tracking, know exactly what software and sites user actively using. Beat Interruption Overload. Clobber procrastination with Goals & Alerts and watch user’s efficiency grow. Compare user Productivity. See user time management efficiency compared to the average Rescue Time user [1].

1.3.2 MANIC TIME

Track user’s computer usage and use collected data to accurately tag time. Auto tracking of computer usage (8 languages), during a day average user can switch back and forth between applications more than a 1000 time, which means Manic Time gathers a lot of data. Local storage, powerful statistics: see which applications user use the most or on which web sites user spend the most time. Also, easily figure out how much time user spent working on projects to accurately bill user’s clients or just keep track of user’s work [2].

1.3.3 TOGGL

Toggl's time tracker is built for speed and ease of use. Time keeping with Toggl is so simple that user will actually use it. Toggl drives a stake in the heart of timesheets. With Toggl user track time in real time. User never lose a minute of user's billable time. If user forget to switch it on, then enter time later on. Organize user time by projects or tags, and mark it as "billable." Toggl is built for teams. User entire staff will be set up and running in minutes. It's as easy as Twitter - no training required. Start out simple, and drill deeper with user rights and project setup later on. User time entries are synced in real time. Offline support keeps user toggling even when out of Wi-Fi or mobile coverage areas. Hit the button on user's iPhone and the timer automatically starts on user computer. That simple. Oh, and Toggl plays well with user Trello, Asana or other favorite productivity tool [3].

1.3.4 PROJECT HAMSTER

Project Hamster is time tracking for individuals. It helps user to keep track on how much time user have spent during the day on activities user choose to track [4].

1.3.5 TIME WORKED

Time Worked is a component for Joomla! CMS. Just installing it into a plain Joomla will give a user a great ready-to-use tool for tracking time spent on some tasks.

The component can be used for any type of business where employees are paid hourly and/or clients are charged hourly [5].

1.3.6 A Time Logger

Application for tracking user everyday activities. Spending only a few minutes a day on this app user will get daily, weekly and monthly statistics in the form of diagrams and graphs. Using this data user will be able to control and manage user's time [6].

1.3.2 Google's Find My Device

The most popular medium of tracking and controlling our devices is Google. Through Google we can track location of our devices and the web activity like web browsing, YouTube search story, watch story through online. All these happen if our Gmail account is logged in on our device.

The limitations are if one logged out the account, we cannot track anything. Another fact is in this system we can track only our device but our concern is controlling activities of the devices given to employees [7].

Most of the application described above enables employers to control their employees through monitoring time. But none of them provide a way for monitoring the activities of the devices employees uses to provide their services. Trackmee serve this purpose. Although google provides a way to track devices but it is for personal devices. Trackmee will enables business organizations to monitor their employees' activity throughout the devices they provide them for performing service.

Chapter 2

REQUIREMENTS ELICITATION

2.1Product Perspective

Trackmee is an online resource management system. It will help business organizations to ensure effective use of the devices they have given to their employees. It is a standalone system. When business organization will give any electronic device like mobile phone to their employees, they will configure Trackmee in the device. Then Trackmee will retrieve usage data, analyze, and send to managers to ensure the effective use of the device.

2.2User Classes and Characteristics

2.2.1 Tracker

Assigned tracker of business organizations will be main user of Trackmee. They should configure the devices they are going to give their employees with Trackmee. They should receive every employee's usage report, which will include usage percentages for personal work and organizational work and relative details, and generate report and send them to management so that management can take decision to ensure effective use of resources online.

2.2.2 Administration

There will be administration of the system who will be responsible for administrative work of the system. They will assign tracker responsibilities of tracking. They will open account for them. They will also unlock accounts if a tracker has forgotten his logging credentials.

2.2.3 Employees

Employees will use the device given by the organization to them for organizational work. Trackmee will be installed on the device (mainly mobile phone) by the management and will collect data regarding how employee is using the device. Then it will analyze and generate report comparing personal usage and organizational usage and send the data to management.

2.3 Operating Environment

This software will operate in any operating environment. It's very light weighted software, that's why minimum hardware is required like duel core and ram 2 GB. We also required an external device. A cheap will record device logs and send them to systems database.

2.4 Design and Implementation Constraints

The design and implementation criterion totally depend on customer's requirement. Our software will have the ability to parallel access, Authorities as well as assigned tracker can access. There will be logging feature through password for defined tracker for security manner. In here, Administration and normal tracker's user interface will be different. There will be communication level like as mail. Language will be English. System will have its own database.

Mainly php will be used in the front end but for communicating with machine and performing machine-learning activities like analyzing data python will be used for its vast availability of open-source machine learning libraries.

We will use Laravel framework for php.

2.5 Methodology of data collection for the software

2.5.1 Interview and Survey

We conducted an online survey to determine people's interest towards our application that we have proposed and what functionalities they want the system should implement. About 20 people from different organizations of different types and different size participated the survey.

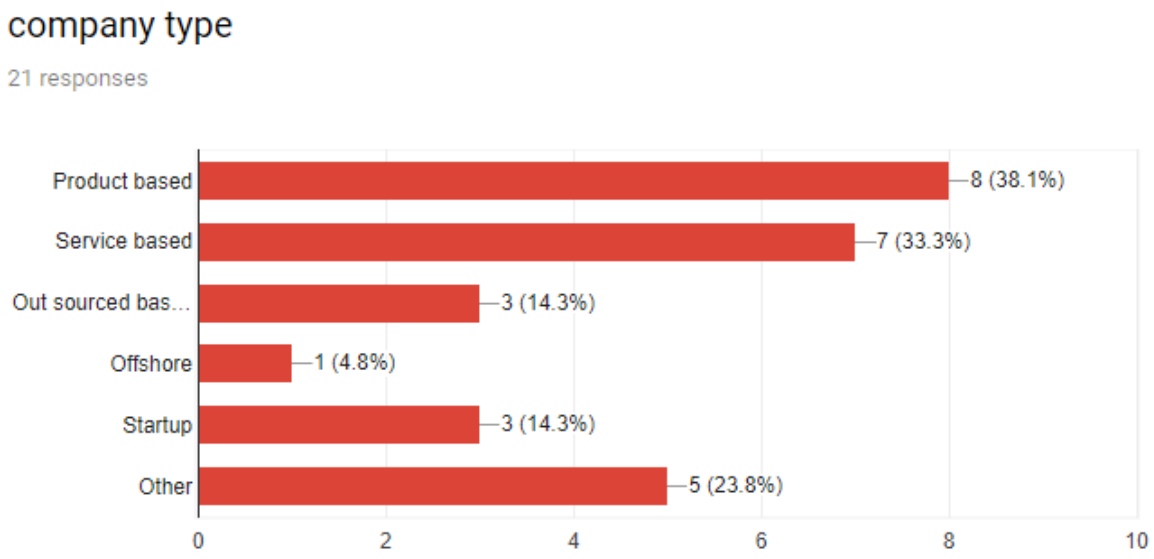


Fig 1: graph of different participants from different types of organization

There were people from different post of organizations. Like C.E.O, Executive, MD, and employee.

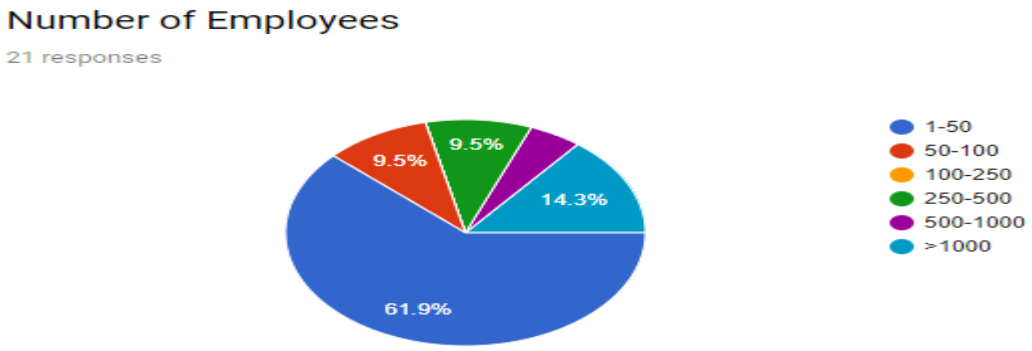


Fig 2: graph of different participants from different sizes of organization

All of them agree that there should be tracking tool to monitor and control the devices organizations give to their employees to ensure efficient use of those devices.

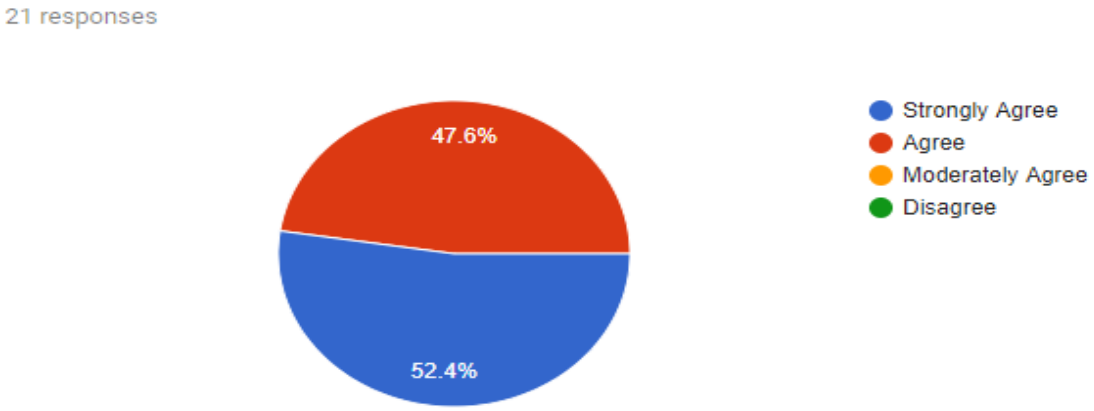


Figure 3: graph-representing percentage of participants agreeing and disagreeing for the tracking software

Most of the participants agree that tracking tools may access the devices log files to analyze the data and store them in the database. They agree that system should generate usage reports and performance reports based on those data. They think that mangers or higher authority should receive daily usage report to monitor and control devices given to employees efficiently so that they can get best output from employees. They think that employees should receive a monthly progress report of their work so that they can improve themselves. Some participants disagreed that system will store the devices log data in the database. They think that system should access the data analyze and produce the reports and discard data.

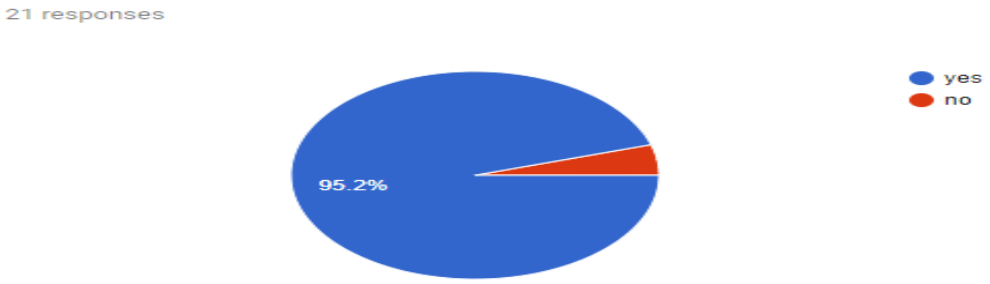


Figure 4: No of participants agreeing, that whether tracking tool should save the log files in database or not

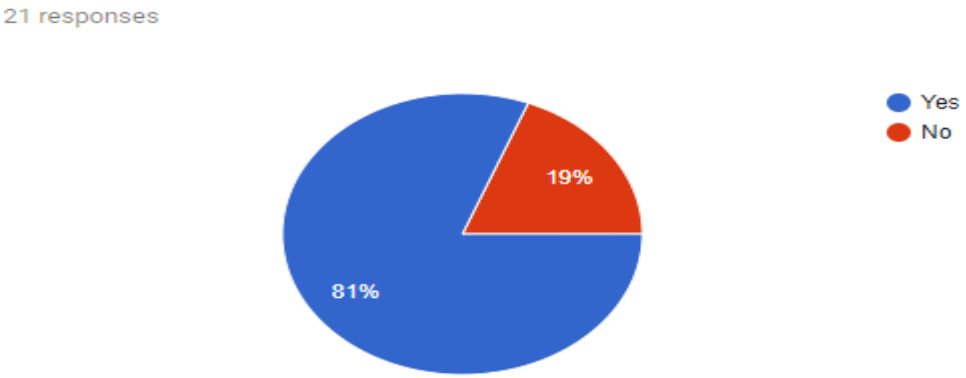


Figure 5: No of participants agreeing, that whether tracking tool should analyze usage type of the devices based on their log files and generate report or not

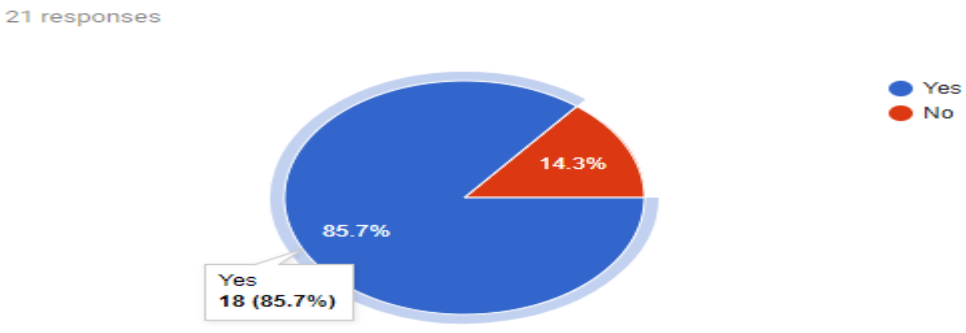


Figure 6: No of participants agreeing, that whether tracking tool should store generated reports in the database or not

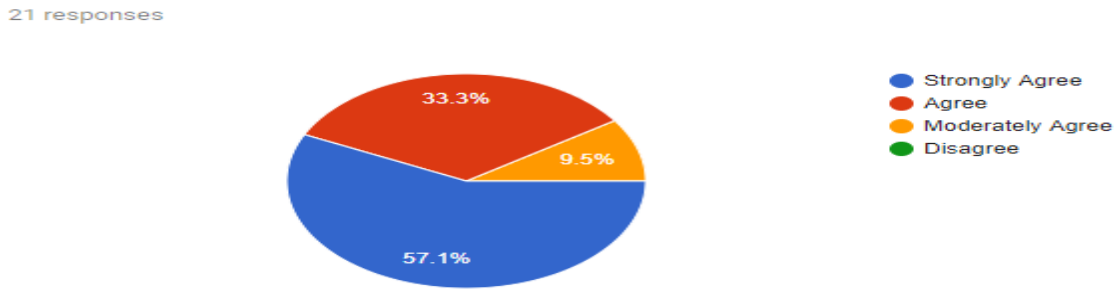


Figure 7: No of participants agreeing, that whether tracking tool should mail the authority daily usage report of the tracked devices or not

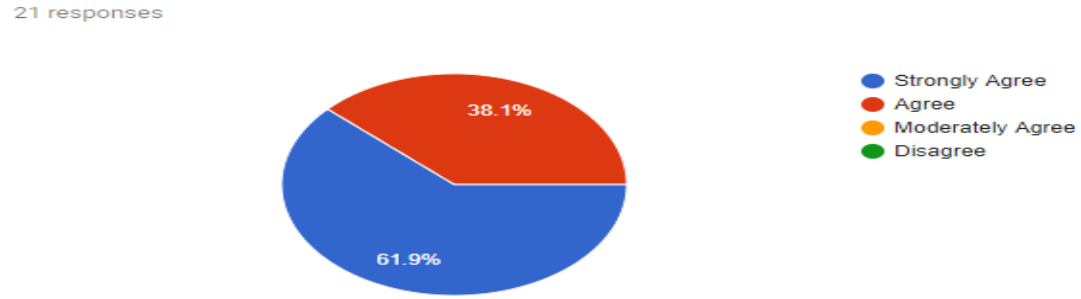


Figure 8: No of participants agreeing, that whether tracking tool should mail employees their performance report regarding use of the tracked devices to improve themselves or not

Chapter 3

REQUIREMENTS SPECIFICATION

3.1 Use stories

Use Case Name	Actor	User Story
Login into system	Tracker	As a Tracker, I want to want to login in the system so that I can perform my tracking activities properly.
Register into system	Admin Tracker	As a Admin Tracker, I want to want to create an account for the assigned tracker in the system, so that I can enable him to do his tracking activities.
ADD Employee Mobile	Tracker	As a Tracker, I want to register mobile phone record queue so that those devices can be tracked
Generate Report	tracker	As a Tracker, I want to access user phone's log file, call logs and browser history during office hour and analyze and generate reports so that I can send them to managers to control employee activities.
Send Usage Report	Tracker	As a Tracker, I want to send report to higher authority so that they can assess employees' performance using the device
Send Performance report	Tracker	As a Tracker, I want to send monthly performance report of an employee regarding his using the device so that he can improve his performance

Table 1: Login to system use case

Use Case Name	Login to system	Use Case Type Functional Requirement
Use Case ID	UC_1	
Priority	High	
Primary Business Actor	Tracker	
Other Interested Stakeholders	• None	
Description	This use case describes the steps to enter the System. By giving User	

	name and password and checked the validation by the system a user can enter in the system.
Precondition	The user must be valid.
Trigger	The use case is initiated when tracker tries to enter in the system.
Typical Course of Events	Step 1: The user input user name and password. Step 2: By click on login a validation process is run by the system Step 3: If the user name and password is matched the user can go to the home page.
Conclusion	The use case concludes when the entry operator gets a confirmation message from the system.

Table 2: Register into system case

Use Case Name	Register into system	Use Case Type Functional Requirement
Use Case ID	UC_2	
Priority	High	
Primary Business Actor	Admin Tracker	
Other Interested Stakeholders	• None	
Description	This use case describes the steps to create a valid account for the tracker. If the tracker doesn't have a valid account, then Admin tracker must create a valid account for the tracker.	
Precondition	The user must have a valid email id.	
Trigger	The use case is initiated when a tracker doesn't have an account.	
Typical Course of Events	Step 1: The Admin tracker clicks on the register button. Step 2: A dialog box appears, containing fields for the requirement to create an account. Step 3: The box can be dismissed by completing all requirement a click on "OK" cancel the whole box by click on "Cancel". Step 4: If the "OK" button is clicked the account is added with a unique id. An email containing username and password is sent to the tracker for whom the account is created. Step 5: If the "Cancel" button is clicked no changes are made in the database.	
Conclusion	The use case concludes when the entry operator gets a confirmation message from the system.	

Table 3: ADD Employee Mobile use case

Use Case Name	Add Employee Mobile	Use Case Type Functional Requirement
Use Case ID	UC_3	
Priority	Medium	
Primary Business	Tracker.	

Actor	
Other Interested Stakeholders	Management and authority
Description	This use case describes the process of entering device identification details in the system. The device will be tracked
Precondition	The device must be given by the organization.
Trigger	The use case is initiated when organization gives their employee a new device.
Typical Course of Events	Step 1: A tracker clicks on the add device button. Step 2: A page apparel with the related employees name Step 2: Tracer insert the device serial number and related employee id in the field.
Conclusion	The use case concludes when the entry operator gets a confirmation message from the system.

Table 4: Generate Report

Use Case Name	Generate Report	Use Case Type Functional Requirement
Use Case ID	UC_4	
Priority	High	
Primary Business Actor	Tracker	
Other Interested Stakeholders	• None	
Description	This use case describes the steps to generate usage report and employee's performance rating report. Log files are first accessed and stored in database. Letter system retrieve them when tracker request for generating the report and analyze log data and generate report. On completion, the report is inserted into the database.	
Precondition	The user must be valid.	
Trigger	The use case is initiated when tracker tries to generate new report	
Typical Course of Events	Step 1: The user clicks log_data. Step 2: A page containing employee's device usage log appears. Each record represents unique device log record and each record is identified by employee id. Step 3: By default, all the records are checked for analysis, but user tracker can uncheck a record. Step 4: Tracker can select usage report or performance report. Step 5: After clicking generate report will be generated and saved in the database.	
Conclusion	The use case concludes when the entry operator gets a confirmation message from the system.	

Table 5: Send Report use case

Use Case Name	Send Usage Report	Use Case Type Functional Requirement
Use Case ID	UC_5	
Priority	High	
Primary Business Actor	Tracker	
Other Interested Stakeholders	• Manager – Wants to see daily efficient usage report of the devices given to employees • CEO- Wants to know how efficiently employees are using the devices	
Description	This use case describes the steps to send generated report from database to manager or higher authority. The selected report is retrieved from database first. After retrieving, report is being mailed to manager.	
Precondition	The report must be usage report and user must be valid.	
Trigger	The use case is initiated when tracker tries to send report to higher authority.	
Typical Course of Events	Step 1: The Tracker clicks reports button. Step 2: A page containing lists of reports of employee's device usage appears. Reports have unique id which is there employee id Step 3: Reports with high personal usage rate are in the top and lowest are after them. Step 4: Each Report contains checkbox. Reports that are checked will be retrieved from database. Step 5 If a checkbox is unchecked that report will not be retrieved from database. Step 6: There will be combo box containing the Higher authority, if a name is selected his email will be retrieved. Step 7: After clicking on the send button all the selected reports will be, send to selected authorities.	
Conclusion	The use case concludes when the send operator gets a confirmation message from the system.	

Table 6: Send Performance report use case

Use Case Name	Send Performance report	Use Case Type Business Requirement
Use Case ID	UC_6	
Priority	Medium	
Primary Business Actor	Tracker	

Other Interested Stakeholders	• Employee – wants to see their monthly progress report regarding their use at the end of each month
Description	This use case describes the steps to send monthly progress report to employee so that they can assess themselves. Progress report is first retrieved from database and then sent to the employee at the end of each month.
Precondition	The user must be valid.
Trigger	The use case is initiated when a tracker tries to send report to employee.
Typical Course of Events	Step 1: The user clicks employee record button. Step 2: A page containing lists of reports of employee's performance rating device usage appears. Reports have unique id which is there employee id Step 3: Reports with lowest performance rate are in the top and highest are after them. Step 4: Each Report contains checkbox. Reports that are checked will be retrieved from database. When a checkbox is selected using the employee id employee's mail id is retrieved and stored as checkbox value. Step 5: if a checkbox is unchecked, that report will not be retrieved from database. Step 7: After clicking on the send button all the selected reports will be, send to related employees.
Conclusion	The use case concludes when the send operator gets a confirmation message from the system.

3.2 Business Requirement

1. Manager can see the percentage rate of official and personal work of an employee.
2. System will retrieve data from devices.
3. System will analyze the data, generate report, and store it in the database.
4. System should automatically retrieve the email address from database when a receiver is selected.
5. System should keep record of to whom reports have been send with date and time.

3.3 System Feature

This part of the document contains the description of the features of the system and the functional requirements.

3.3.1 Description and Priority

The features and descriptions are given here.

3.3.1.1 Login

Tracker should be able to login to the system with provided username and password. It has highest priority.

3.3.1.2 Add New device and access log files

Tracker should be able to add new devices given to employees in the tracking queue and access log files of these devices. This feature has highest priority.

3.3.1.3 Generate Report

Tracker should be able to analyze employee's device log data and generate report for managers and employees. The report for management should contain details usage report including summary of all employee in the cover page, so that manager can see the usage percentage of employee in the first page and track details usage report. The report for employee should contain performance progress of the employee regarding use of the device. Usage reports are identified by the time they have been created and performance-rating reports are identified by the employee id. It has highest priority.

3.3.1.4 Send report

Tracker should be able to send device usage report to manager and performance rating report to employee. Tracker should be able to send report to multiple person at a time. It has highest priority.

3.3.2 Functional Requirements

The functional requirements of the system are given here

3.3.2.1 Login

The system shall verify the username and password provided by the tracker. If correct information is given, the tracker shall be able to log into the system. The system shall check if wrong password is entered too many times.

3.3.2.2 Add New device and access log files

Tracker shall be able to add new mobile phone in the tracking queue. The system shall access

log files of the devices in the tracking queue through the chip integrated in the employee device. Tracker shall be able to see the details of these log files.

3.3.2.3 Generate Report

Tracker shall be able to analyze log data and see usage details of each employee. Tracker shall be able to generate report by one click. Tracker shall be able to generate report of all employees or single or multiple employee at a time. Tracker shall be able to two types of report, one for authority of the organization and one for employees. The system shall store all the usage report in usage reports table and all the employees' performance rating reports in the performance-rating table.

3.3.2.4 Send report

Tracker shall be able to send employees usage report to manager or higher authority and performance rating report to employee. The system shall display all the report generated. System shall display one report single time. System shall retrieve the mail of the selected persons. System shall auto generate mail to the selected persons after clicking on the send button.

3.4 Non-Functional Requirement

3.4.1 System Performance

System is fast. It will take milliseconds to analyze huge amount of log data, as it will use optimistic machine learning algorithm to analyze the data.

System is stable. That is, it can analyze many data at a time without failure.

3.4.2 System Security

The system is secure. It will block unauthorized access. User can login to the system only by providing username and password. If he somehow forgets the password or the username, he will have to unlock the account through administration. While retrieving log files of devices it will encrypt the data and then store it in the database.

It will only provide the percentage usage of device in personal data to mangers not the actual data.

3.4.2 Other Quality Requirements

Usability: As the software is very user friendly, any kind of user can easily handle it without

facing difficulty and analyze thousands of log data within millisecond.

Reliability: The system is reliable. It will be able to operate longer time without failure

Interoperability: The system can interact with other system. To perform its tracking activities, it has to interact with several other systems like web browser, YouTube, calling application of the mobile. The system will work same way across different platforms, operating systems, database management systems.

Maintainability: As it will use machine-learning algorithms, it will have to update its algorithm compliance with time.

Availability: To efficiently monitor the devices managers need daily based reports. So, the system is available 24/7.

Chapter 4

SOFTWARE DESIGN SPECIFICATION

Use case diagram, class diagram, activity diagram, E-R diagram and data dictionary of the SRS of the system is described is this section.

4.1 Use Case Diagram

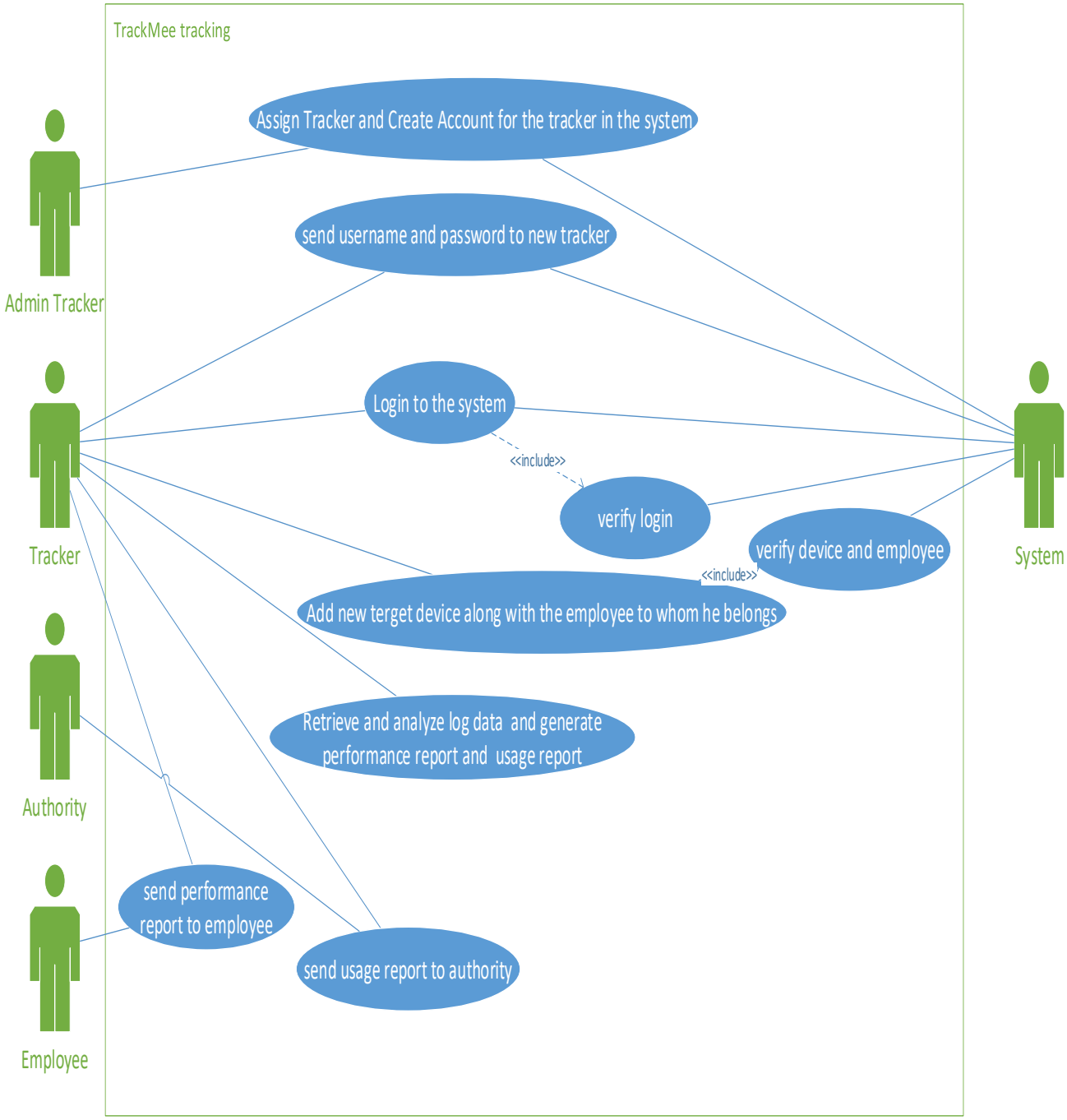


Figure 9: Use case diagram for login to the system

4.2 Class Diagram

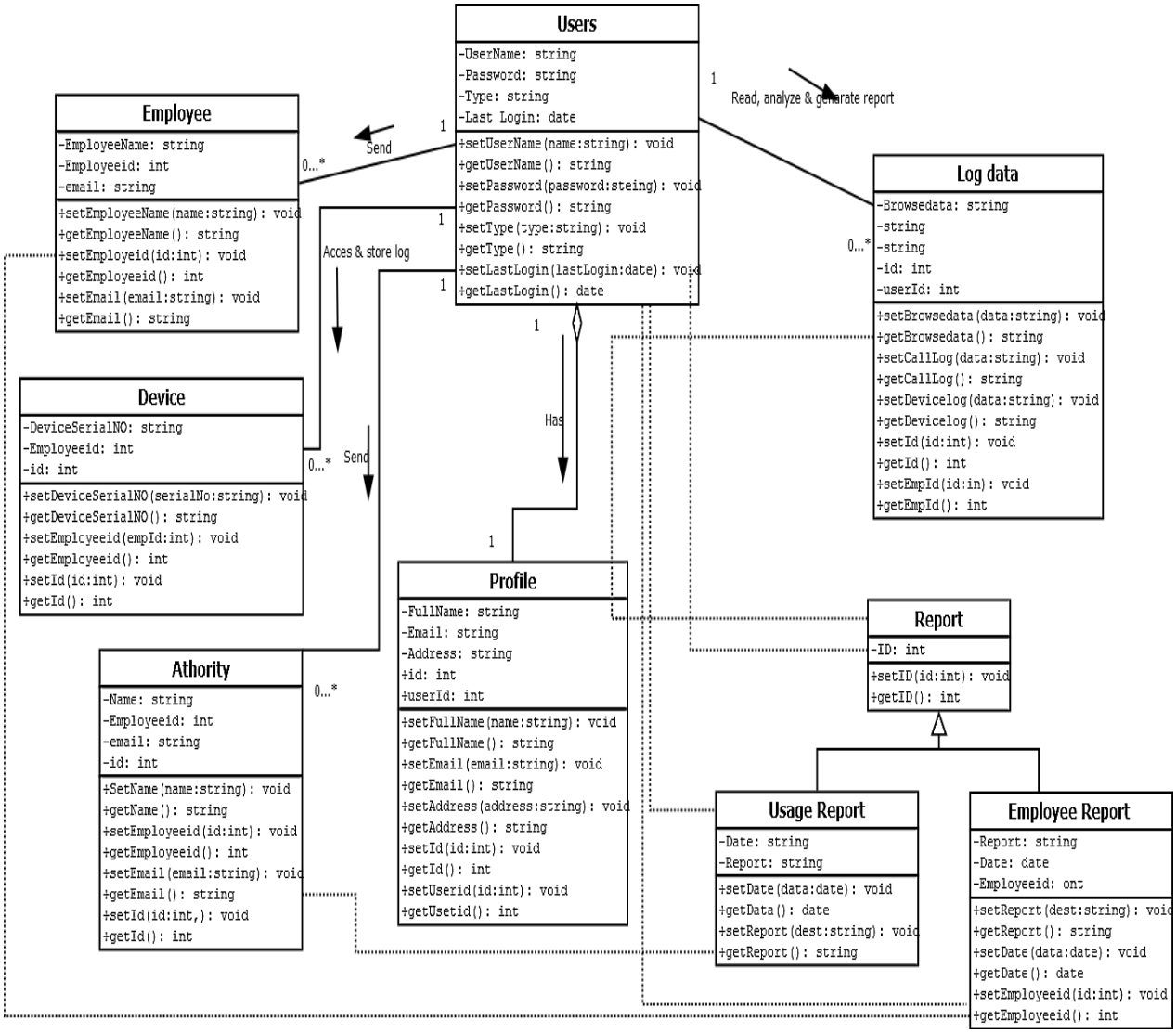


Fig 10: Class Diagram

There will be nine classes for our system. The user & profile classes represent information of tracker. There are two types of report class, Uses report class & Employee report classes. There are two classes for employee & authority, Employee class & Authority class. Device class represents device information. Log data class is for representing log data.

4.3 Activity Diagram

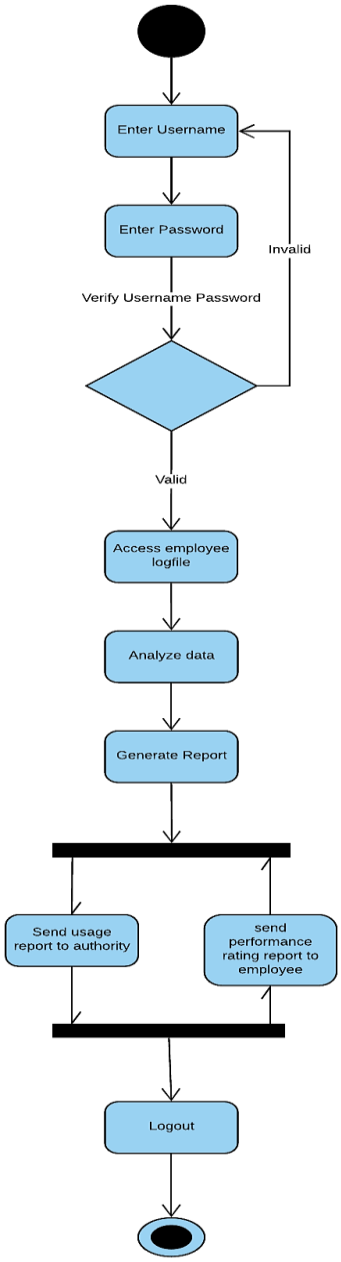
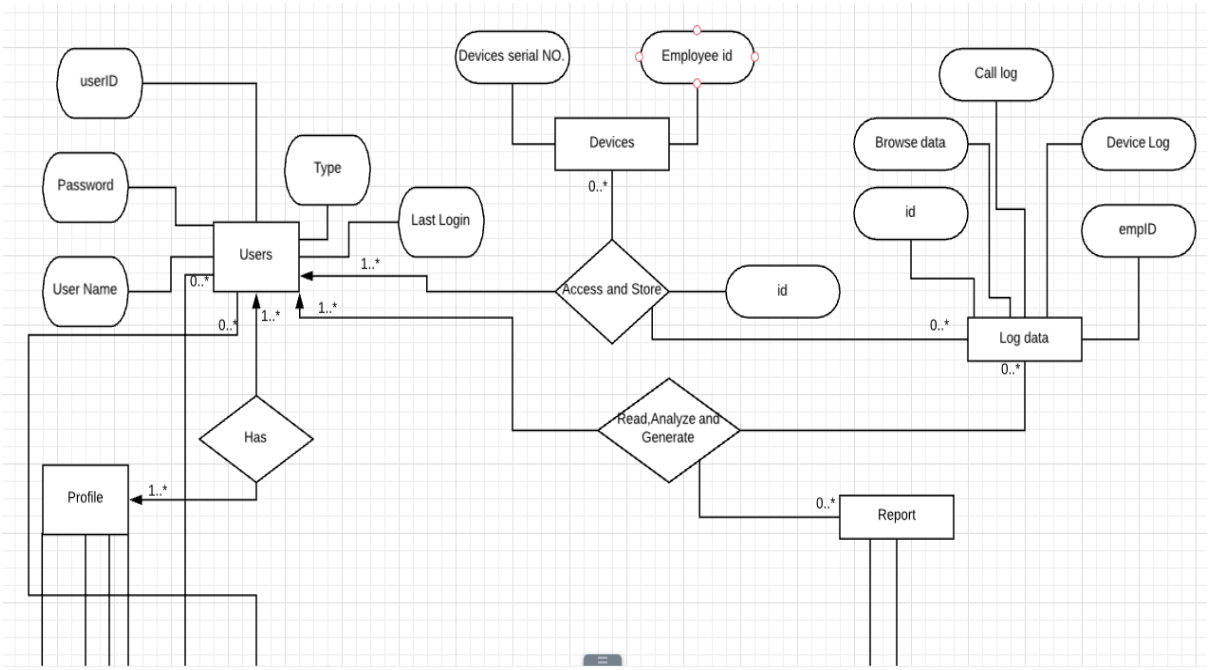


Figure 11: Activity diagram

4.4 E-R Diagram and Data Dictionary

4.4.1 Diagram



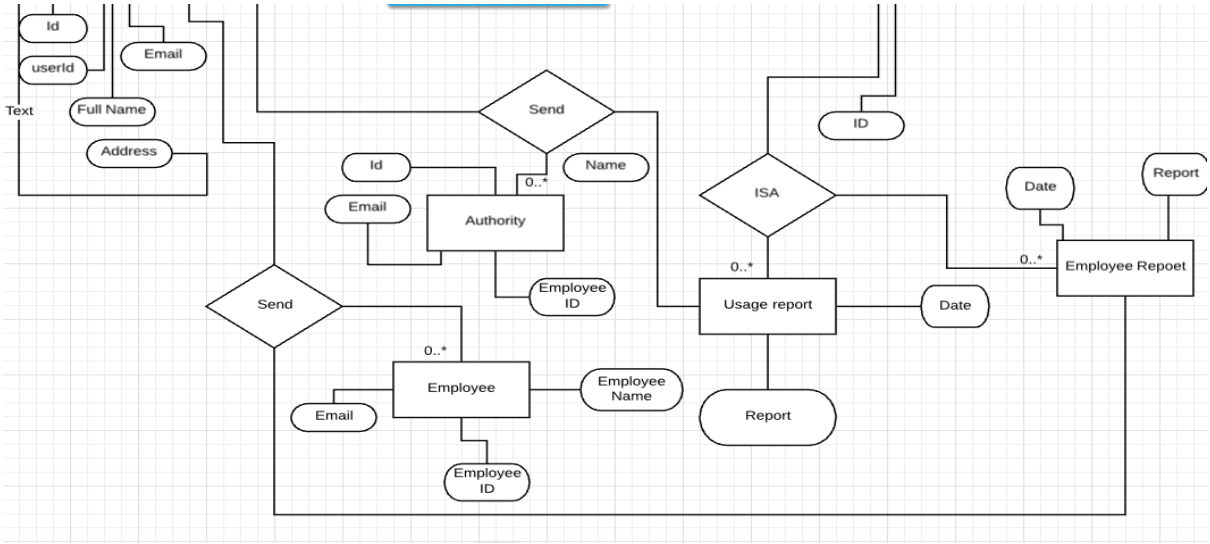


Fig 12: ER diagram

4.4.2 Data Dictionary

Table 7: Data Dictionary

Entity	Attribute	Type/Size	Validation	Key
Users	userId	Number	Required	primary
Users	username	Varchar (100)	Required	unique
Users	Password	Varchar (16)	Required	
Users	type	Varchar (50)	Required	
Users	lastLogin	Date Time	Valid date	
Profiles	id	Number	Required	primary
Profiles	userId	Number	Required	foreign
Profiles	fullName	Varchar (200)	Required	
Profiles	email	Varchar (200)	Required	unique
Profiles	address	Varchar (400)	Required	
Devices	Id	Number	Required	primary
Devices	device_serial_no	Varchar (50)	Required	unique
Devices	employee_id	Number	Required	foreign

Log Data	Id	Number	Required	primary
Log Data	browse_data	Varchar (400)	Required	
Log Data	callLog	Varchar (400)	Required	
Log Data	deviceLog	Varchar (400)	Required	
Log Data	employeeId	Number	Required	Foreign
Employee	employee_d	Number	Required	primary
Employee	employee_name	Varchar (200)	Required	
Employee	email	Varchar (200)	Required	
Authority	id	Number	Required	primary
Authority	employee_id	Number	Required	foreign
Authority	name	Varchar (200)	Required	
Authority	email	Varchar (200)	Required	unique
Report	Id	Number	Required	primary
Usage_Report	Date	Date Time	Valid date	primary
Usage_Report	report	Varchar (200)	Required	
Employee_Report	Emp_id	Number	Required	Unique
Employee_Report	Date	Date Time	Valid date	
Employee_Report	report	Varchar (200)	Required	

4.5 User Interface Design

Tracker Interface:

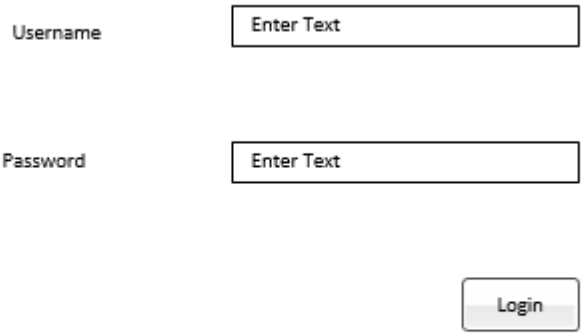


Figure 13: login interface

If login successful tracker home page appears, on failure login page appears with error message

Figure 14: Home page interface

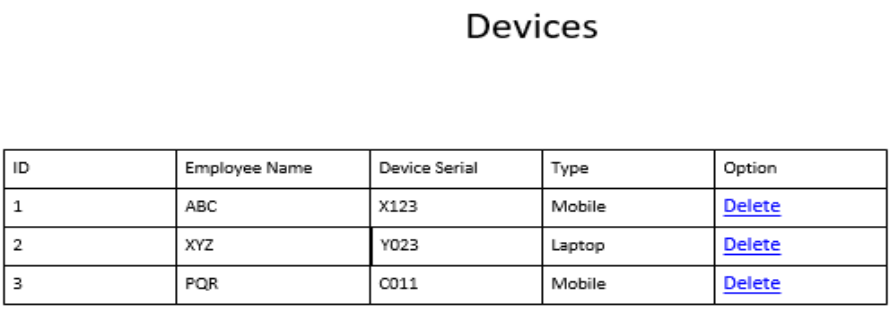


Figure 15: Devices interface

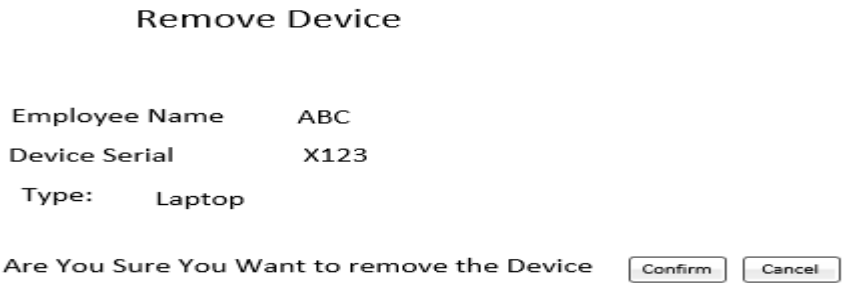


Figure 16: Remove device interface

Figure 17: Reports Interface

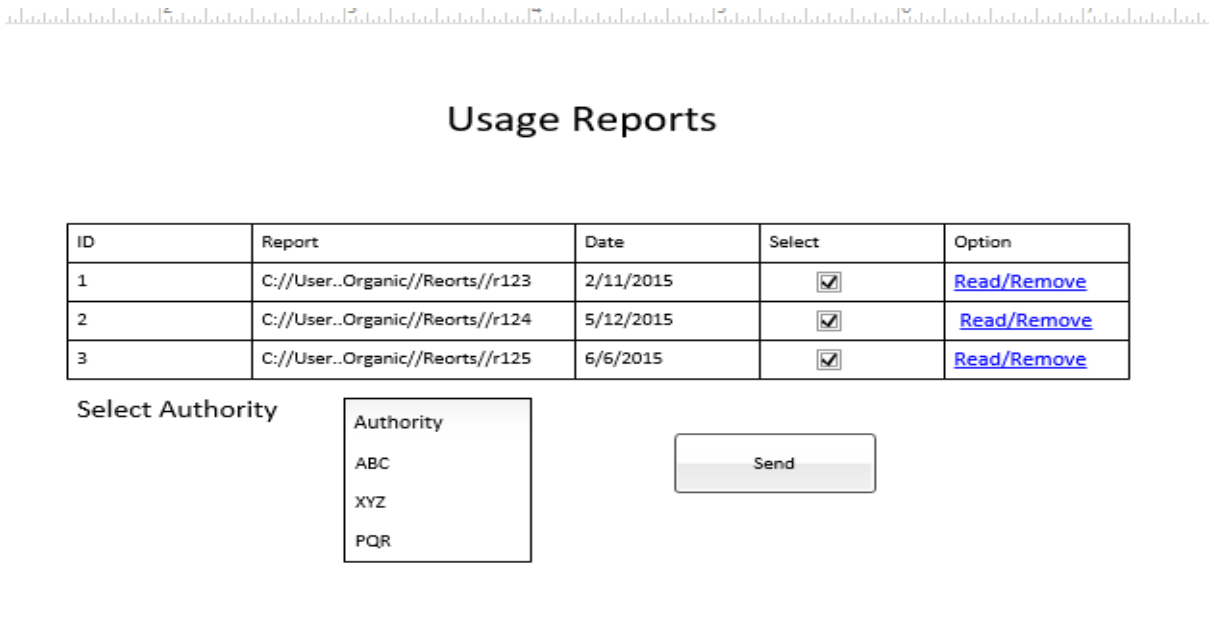


Figure18: Usage reports interface

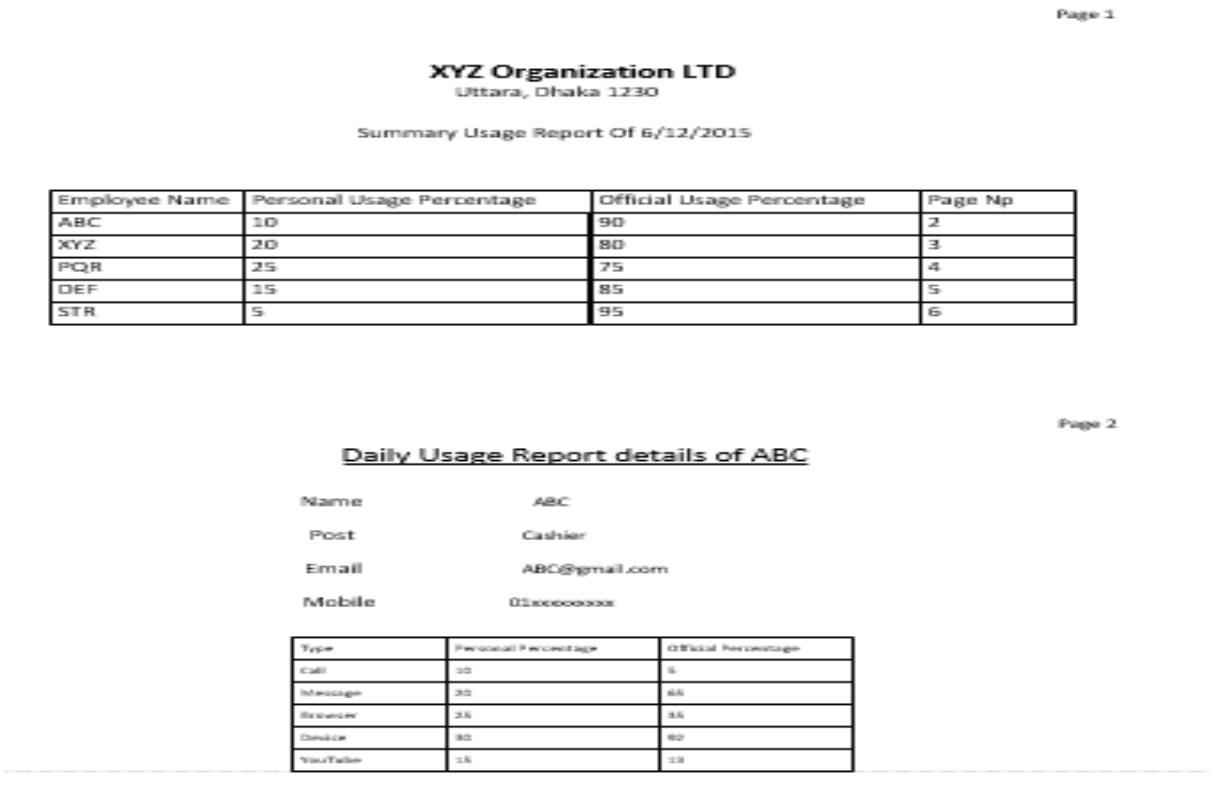


Figure 19: Usage report layout

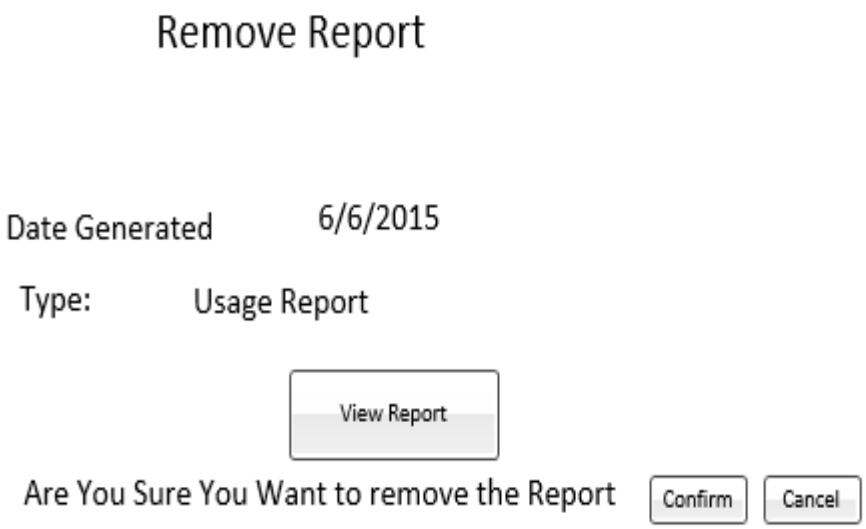


Figure 20: Remove usage report interface

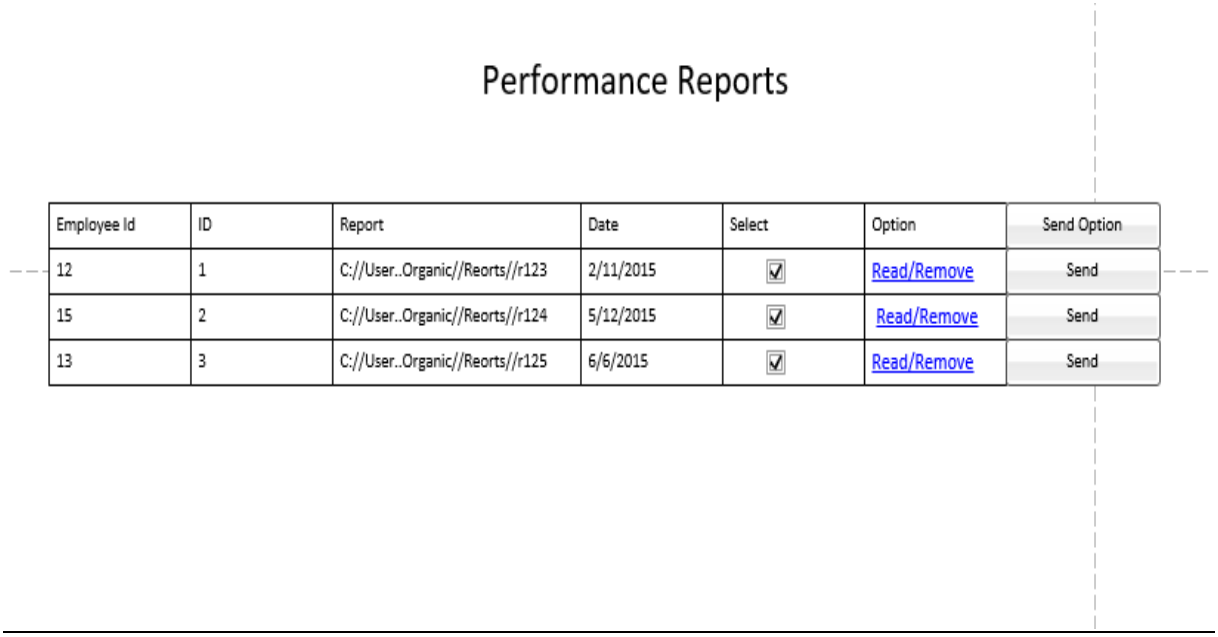


Figure 21: Performance reports

XYZ Organization LTD
Uttara, Dhaka 1230

Monthly Employee Progress Report

Name ABC

Post Cashier

Email ABC@gmail.com

Mobile 01xxxxxxxx

Type	Personal Percentage	Official Percentage	Rating
Call	10	90	Very Good
Message	35	65	Medium
Browser	25	75	Good
Device	8	92	Very Good
YouTube	15	85	Moderate

Figure 22: Performance report lay out

Remove Report

Date Generated 6/6/2015

Type: Performance Report

View Report

Are You Sure You Want to remove the Report Confirm Cancel

Figure 23: Remove report interface

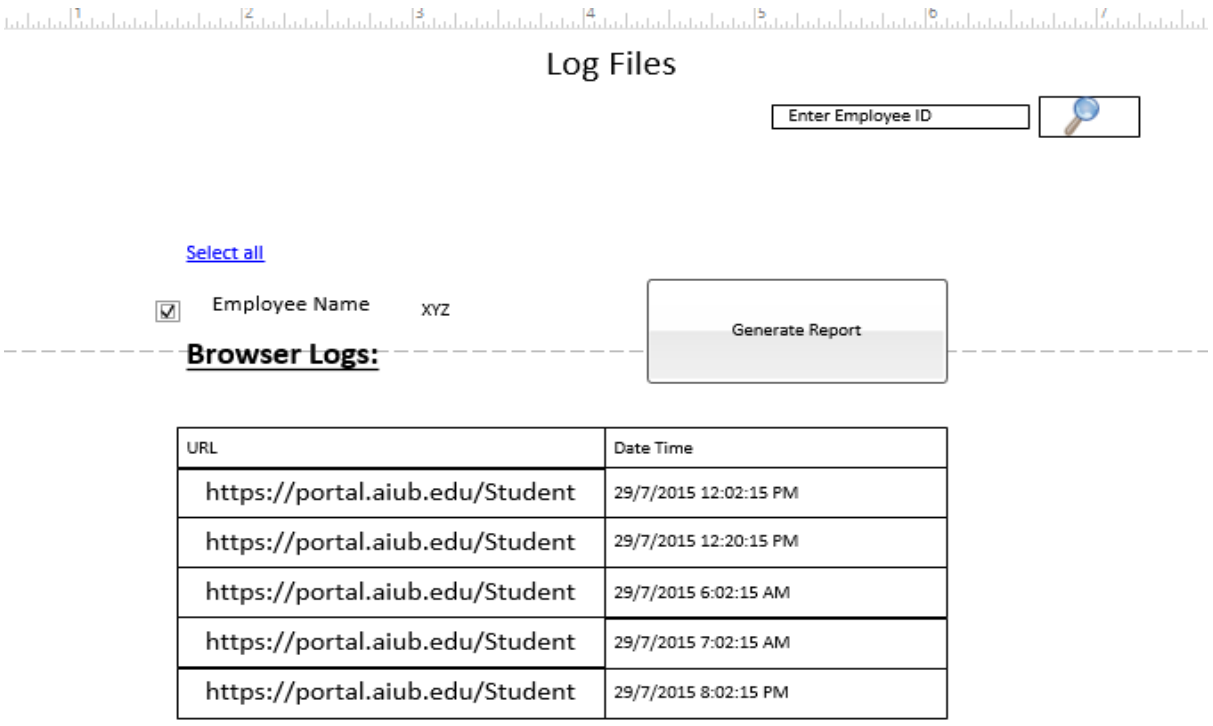


Figure 24: Log files interface

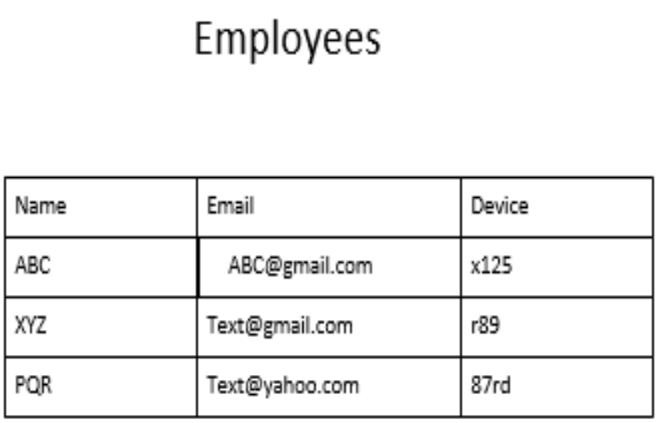


Figure 25: Employees interface

Figure 26: Authorities interface

Admin Interface

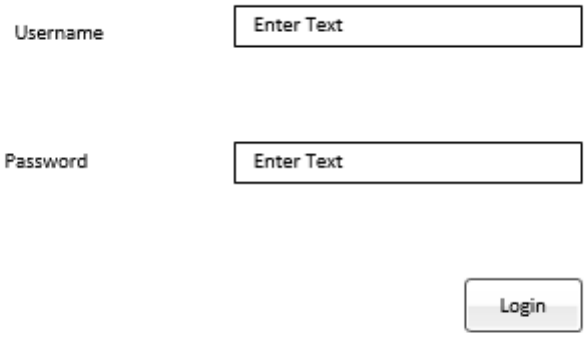


Figure 27: Login interface

If login successful tracker home page appears, on failure login page appears with error message

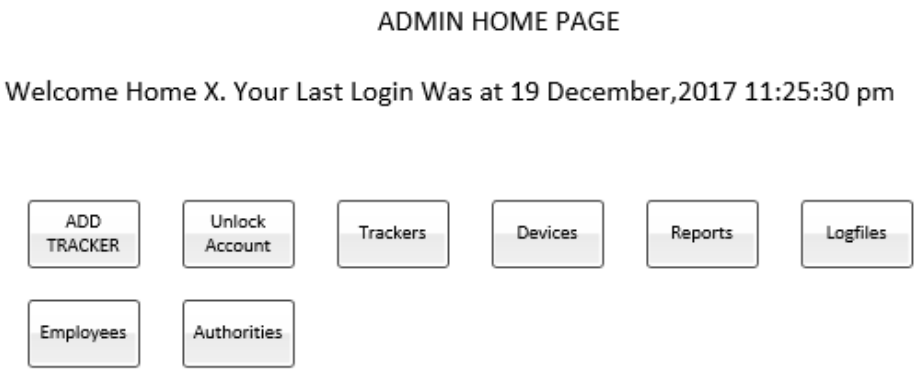


Figure 28: Home page Interface

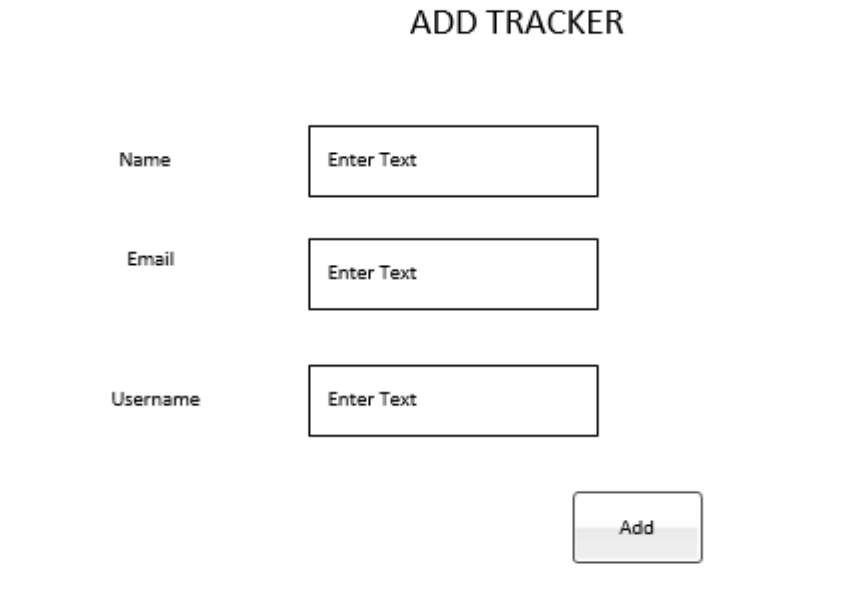


Figure 29: Add Tracker interface

Figure 30: Unlock Tracker Interface

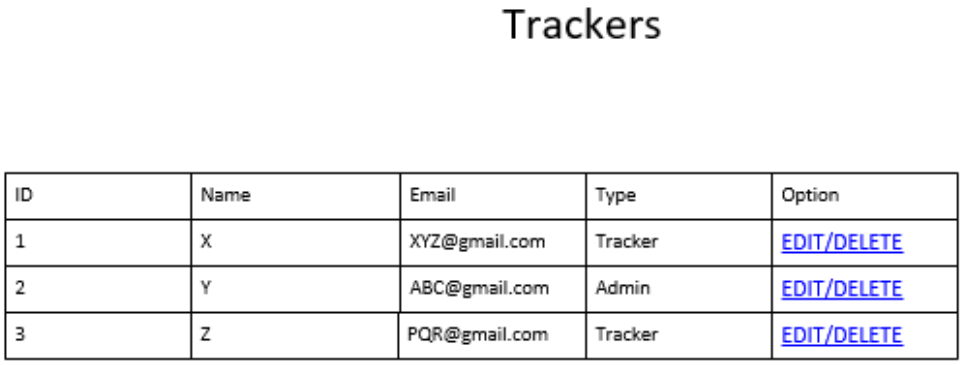


Figure 31: Tracker Interface

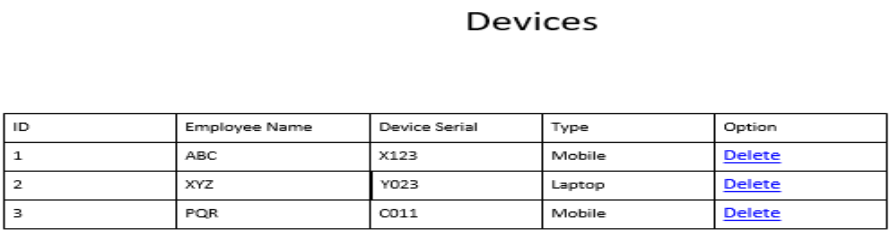


Figure 32: Devices interface

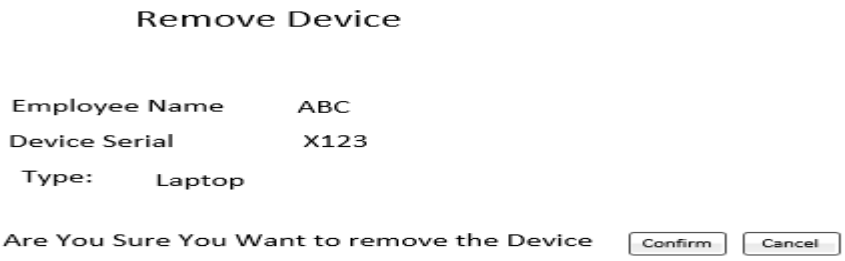


Figure 33: Remove device interface

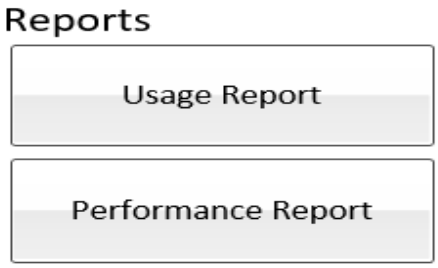


Figure 34: Reports interface

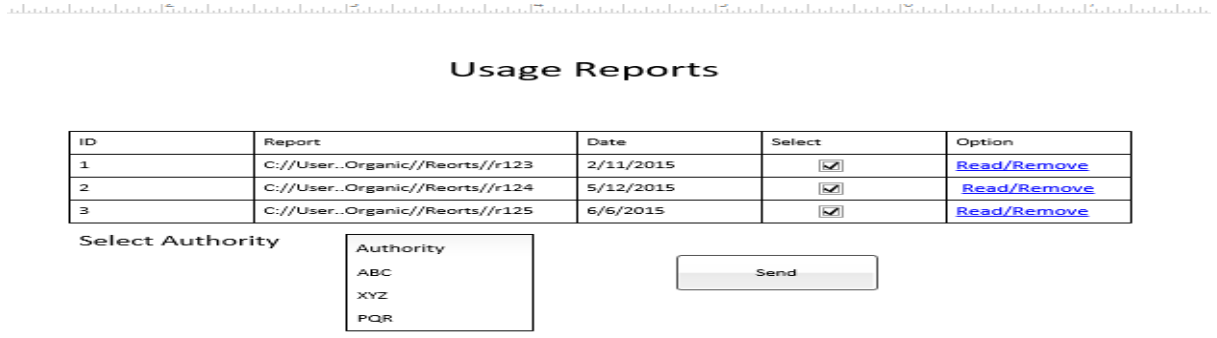


Figure 35: Usage reports interface

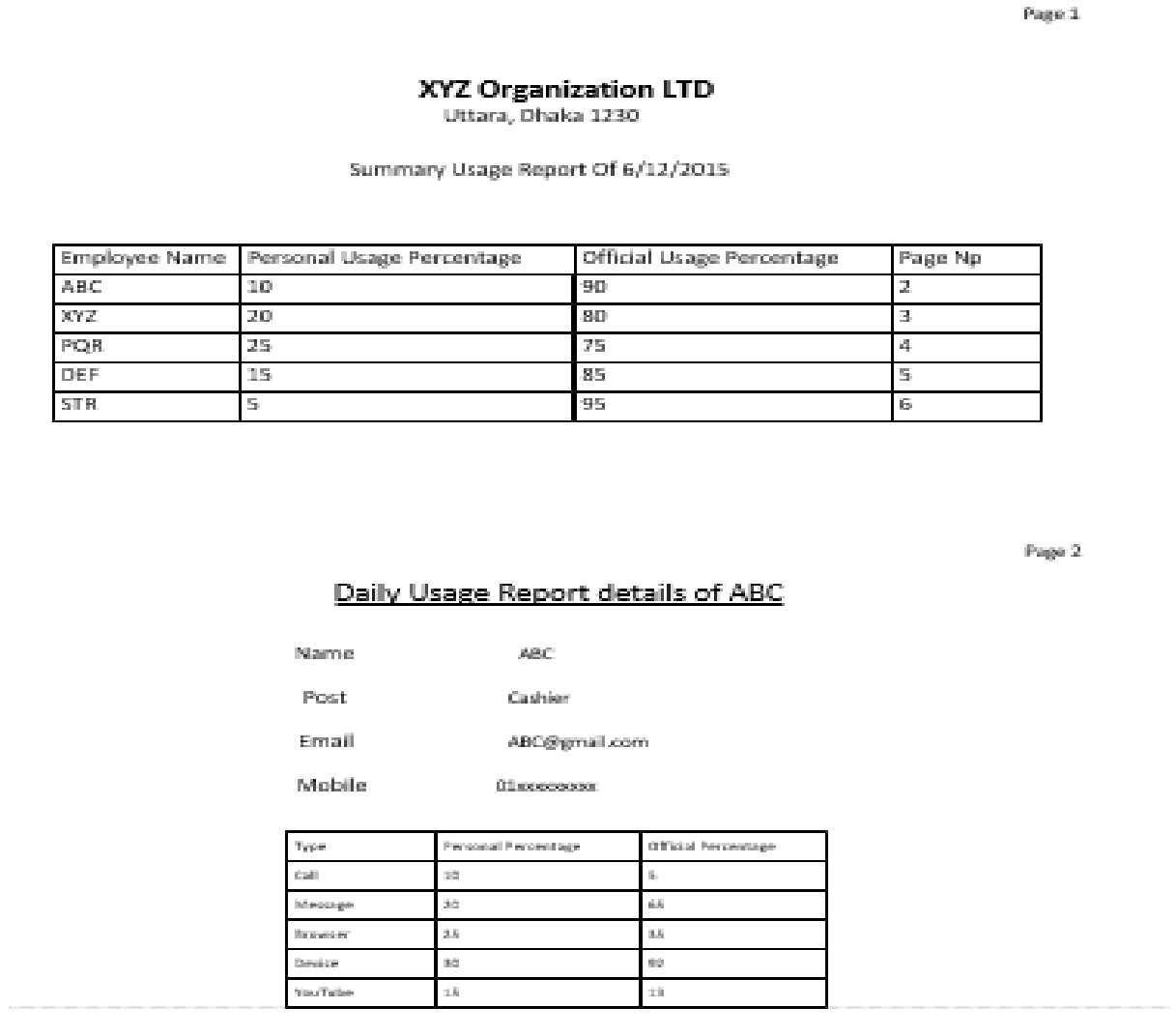


Figure 36: Usage report template

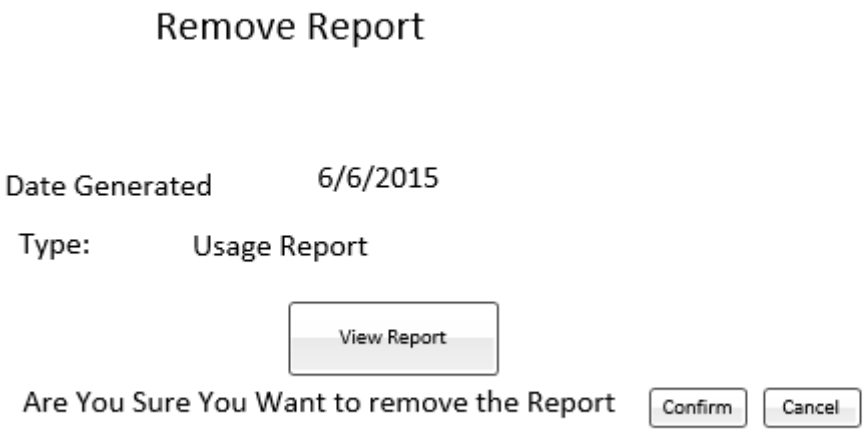


Figure 37: Remove Usage report template

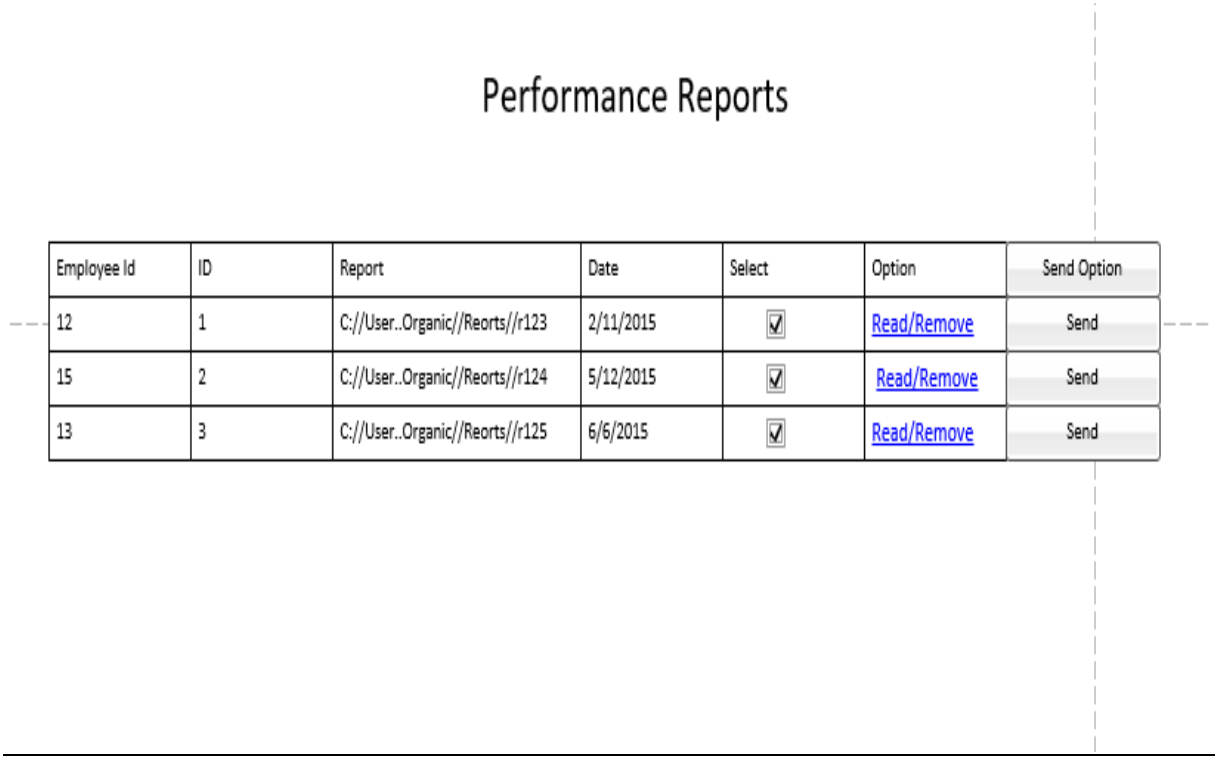


Figure 38: Performance Reports interface

XYZ Organization LTD
Uttara, Dhaka 1230

Monthly Employee Progress Report

Name ABC

Post Cashier

Email ABC@gmail.com

Mobile 01xxxxxxxxx

Type	Personal Percentage	Official Percentage	Rating
Call	10	90	Very Good
Message	35	65	Medium
Browser	25	75	Good
Device	8	92	Very Good
YouTube	15	85	Moderate

Figure 39: Performance report template

Remove Report

Date Generated 6/6/2015

Type: Performance Report

View Report

Are You Sure You Want to remove the Report Confirm Cancel

Figure 40: Remove report interface

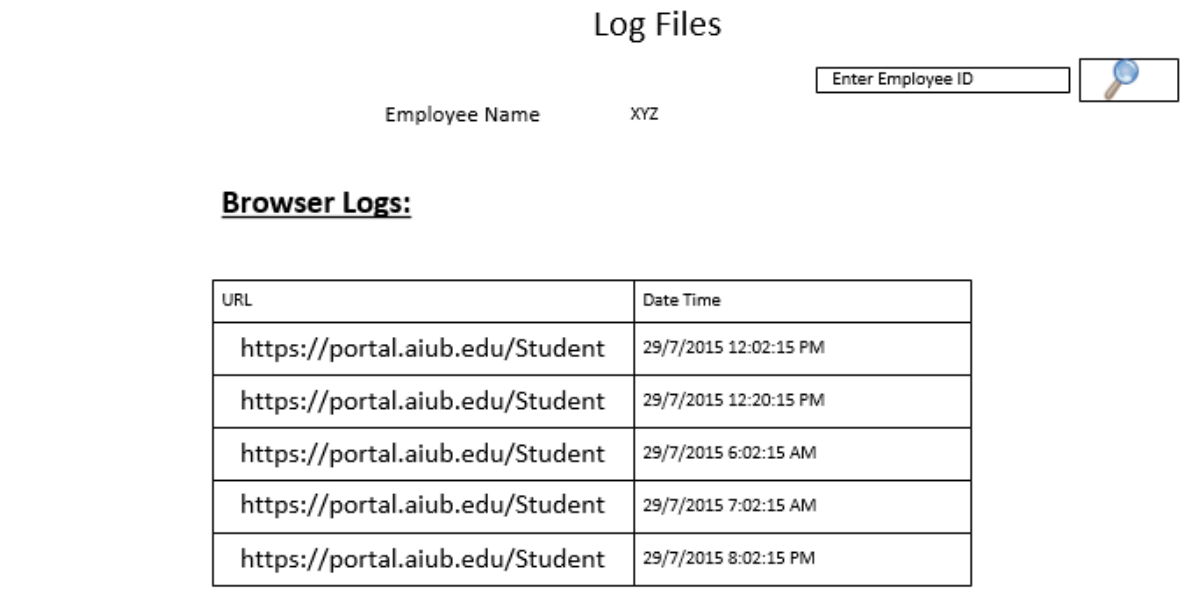


Figure 41: Log files interface

Figure 42: Employees interface

Figure 43: Authorities interface

Chapter 5

REQUIREMENTS VALIDATION

5.1 Formal review (inspection process)

Entry Criteria: The document maintains standard IEEE format. Line numbers and other unique identifiers are properly indicated. Figure are properly explained & identifier of each figure is printed on the document to make it easy to find them. Requirements are properly numbered and indicated. Exit Criteria: There are no defects found in the document. Requirement changes were made correctly.

Conclusion

This tracking system enable, to update employee data and forecast their performance. This is a revolutionary online resource management system, which uses any operating system for tracking employee activities. It enables organizations monitor their employees through monitoring and controlling employees' activities through the device as most of the work is performed through devices nowadays. It abolishes the traditional way of calculating performance. This will definitely reduce paper work and saves one precious time. This application makes good use of recent technologies and thereby increases over all performance of employees. In addition, has a substantial business value because it reduces hardware and maintenance cost and increase business efficiency.

Reference

[1]. RESCUE TIME: https://www.rescuetime.com/
[2]. MANIC TIME: https://www.manictime.com/
[3]. TOGGL:
https://timelyapp.com/toggl-vs-timely?utm_source=google&utm_medium=cpc&utm_campaign=ENG_ROW_SEARCH_ALLTARGETS_COMPTABL_COMPETITORS&utm_content=Toggl_EXACT&gclid=Cj0KCQiAp8fSBRCUARIsABPL6JZDwQNZfkZPXIRug5tDmJZmxIYc8fcq1e6962EeF1SogsyAAR_0txEaAsFtEALw_wcB
[4]. PROJECT HAMSTER: https://projecthamster.wordpress.com/
[5]. TIME WORKED:
https://www.tsheets.com/pages/timesheets-twopart?utm_source=AdWords&utm_medium=pay-per-click&utm_campaign=Global&utm_content=Global_Time_Tracking&utm_term=time%20tracking&gclid=Cj0KCQiAp8fSBRCUARIsABPL6Jb5MmEO71vaGYatlO_83JjTYmoPyZ8YODALqd6mBTbVJmRkt-MSetIaAme8EALw_wcB
[6]. A Time Logger: http://www.atimelogger.com/
[7]. Google's Find My Device: https://support.google.com/accounts/answer/6160491?hl=en

APPENDIX - I: QUESTIONNAIRE

TrackMee Survey

TrackMee is an online based tracking tool, which can monitor the electronic resources given to employees and give a feedback result to the authority.

* Required

1. **Email address** *

2. **Name** *

3. **Contact**

4. **Organization Name**

5. **Year of Foundation**

6. **Position in the Organisation**

7. **company type** *

check all that apply
Check all that apply.

- [ ] Product based
- [ ] Service based
- [ ] Out sourced based
- [ ] Offshore
- [ ] Startup
- [ ] Other

8. **Number of Employees** *

Mark only one oval.

- ◯ 1-50
- ◯ 50-100
- ◯ 100-250
- ◯ 250-500
- ◯ 500-1000
- ◯ >1000

9. **Which device you provide to your employees for accomplishing their job ?** *

Check all that apply.

- ☐ laptop
- ☐ mobile

10. **Do you think you it will be helpful for you if you use a tracking tool like TrackMee to monitor devices you have given to your employees to control the use of these devices in personal use and official use ?** *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Moderately Agree
- ◯ Disagree

11. **Do you want the tracking tool to access and retrieve log files of the devices you provided to your employees ?** *

Mark only one oval.

- ◯ Yes
- ◯ No

12. **Do you think the tracking should save the log files in database ?** *

Mark only one oval.

- ◯ yes
- ◯ no

13. **Do you want the tracking tool to analyse usage type of the devices based on their log files and generate report ?** *

Mark only one oval.

- ◯ Yes
- ◯ No

14. **Do you think tracking tool should save the reports in database ?** *

Mark only one oval.

- ◯ Yes
- ◯ No

15. **Do you think it will be helpful for you if tracking tool mail you daily usage report of these devices, so that you can make efficient uses of these devices(like monitoring employees effectiveness)?** *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Moderately Agree
- ◯ Disagree

16. **Do you think it will be helpful for employees if tracking tool send them monthly performance report their device, so that they can make efficient improvement in doing their job?** *

Mark only one oval.

- ◯ Strongly Agree
- ◯ Agree
- ◯ Moderately Agree
- ◯ Disagree

17. **Do a tracking tool need to Store the data of performance rate forever?** *

Mark only one oval.

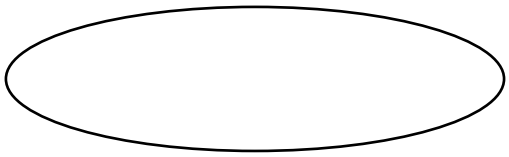
- ◯ Strongly Agree
- ◯ Agree
- ◯ Moderately Agree
- ◯ Disagree

Figure 44: Trackmee survey questionnaire

APPENDIX - II: Diagram Symbols and Notation

This part explains different symbols and notation used for different diagrams like use case, activity, class and E-R diagram.

Symbols and Notations for Use case diagram



Represents an activity of an actor

<< include >> ----------→ Represents direct dependency

<< exclude >> ----------→ Represents optional dependency

Represents action of an actor

Symbols and Notations for Class diagram

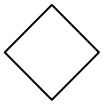
Class Name
[access modifiers -, #, +] member_variable_name: data type
[access modifiers -, #, +] member_function_name (function parameters): function return type

** Access modifiers are private (-), public (+) or protected (#).

Symbols and notations used for Activity Diagram:

Represents start on an activity.

Represents the end of an activity.



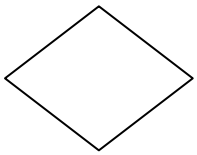
Represents a decision in the activity flow.

Represents an activity by the user.

Symbols and notations used for E-R diagram:

Represents an entity

Represents an attribute



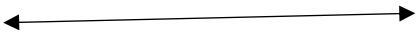
Represents a relationship

Represents primary key

Represents foreign key

Represents many to many relationship key

Represents many to one and one to many relationship



Represents one to one relationship