

SOFTWARE ENGINEERING

FINAL PROJECT: LOTTERY MACHINE

GROUP NAME :SCIENCE

GROUP MEMBERS:

FABRICE IRAZI(F17040123)

ELIZABETH LISA MONDOL (F17040114)

RIDITA ISLAM (F17040106)

NAA KOSHIE WALLACE BRUCE(F17040122)

MUKHRIDDIN ZIYODULLAEV(F17040110)

DOCUMENTATION FOR USERS

❑ A lottery is a game of chance in which people pay for the opportunity to win prizes. Part of the money taken in by a lottery is used to award the winners and to pay the costs of administering the lottery. The money left over is profit. Lotteries are extremely popular and legal in more than a hundred countries. Our goal is to make a software lottery machine which is very faithful and reliable. The players just need to scan a QR code to use it and it free of costs.

❑ The user has just to get a QR code to scan. After scanning he'll get an information about the lottery. He'll have to provide his name and an id will be provided for him for a particular identification.

❑ The admin is one who is in charge for running the software. He will register the name for the user in a database. He is going to use java editor to store information and also he's the one to provide an id and also some information to the user about how and when the lottery is happening.

❑ The user and admin are using Wechat to communicate about anything as the user is providing his information.

DOCUMENTATION FOR DEVELOPERS

For someone who wishes to contribute to our project as a developer, first of all he need to understand our goals. In order to get a picture about what to add or what to improve as our principal goal is to make a lottery machine with some interesting features.

❑ The developer needs to find the source code into Github by searching our group name SCIENCE .

❑ We uploaded everything about the code in our repository our SRS file contains every steps of building our project.

❑ Our project is built and compile in Java about the database we just used Java

editor .

The developer need to get an entire idea of our project in details .

1. **We need to import some files such as**

```
import java.io.BufferedReader;
```

```
import java.io.File;
```

```
import java.io.FileNotFoundException;
```

```
import java.io.FileReader;
```

```
import java.io.IOException;
```

```
import java.io.InputStream;
```

```
import static java.lang.Thread.sleep;
```

```
import java.net.MalformedURLException;
```

```
import java.util.Vector;
```

```
import javax.swing.JFileChooser;
```

```
import javax.swing.JOptionPane;
```

```
import sun.audio.AudioPlayer;
```

```
import sun.audio.AudioStream;
```

```
import sun.audio.*;
```

```
import java.io.*;
```

```
import java.util.logging.Level;
```

```
import java.util.logging.Logger;
```

```
/*
```

```
* To change this license header, choose License Headers in Project Properties.
```

```
* To change this template file, choose Tools | Templates
```

```
* and open the template in the editor.
```

```
*/
```

```
/**  
*  
*  
*/
```

2. This is the function for Frame

```
public class LotteryMachine extends  
    javax.swing.JFrame implements  
    Runnable {
```

3. This code is for importing some names in the file. (loading a file)

```
private void jMenuItem1  
    ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
        jFileChooser = new JFileChooser();  
        jFileChooser.showOpenDialog(this);  
        file = jFileChooser.getSelectedFile();  
        studentlist = loadFile(file);  
        fileloaded = true;  
    }
```

4. This function is for TextField lottery machine

```
private void jTextField1ActionPerformed(  
    java.awt.event.ActionEvent evt) {  
    // TODO add your handling code here:  
}
```

5. This is the code for performing the action of starting, the running part and producing some music as well printing the warning message to load a file from the input

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {  
    // jLabel2.setIcon(new  
    javax.swing.ImageIcon(getClass().getResource("Ridoy.jpg")));  
  
    if (fileloaded){  
        flag = true;  
        InputStream in;  
        try {  
            Startmusic = new Music("/Users/fabriceirazi/Desktop/music.wav");  
        } catch (MalformedURLException ex) {  
            Logger.getLogger(LotteryMachine.class.getName()).log(Level.SEVERE,  
null, ex);  
        }  
        Startmusic.play();  
        myThread = new Thread((Runnable) LotteryMachine.this);  
        myThread.start();  
        jButton1.setEnabled(false);  
    }else {  
        JOptionPane.showMessageDialog(jPanel2, "Please, load a file from the  
input");  
    }  
}
```

6. This is the code to reset the action:

```
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {  
    fileloaded = false;  
    jLabel1.setText("Reset done");  
  
    jButton1.setEnabled(true);  
  
    Startmusic.stop();  
  
}
```

7. This is the code for stopping the action and music and printing an icon showing the winner:

```
private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {  
    flag = false;  
    Startmusic.stop();  
    jButton1.setEnabled(true);  
    if(fileloaded){  
        jLabel1.setIcon(new  
javax.swing.ImageIcon(getClass().getResource("win.gif")));  
    }  
  
}
```

8. This code is for performing a panel which contains some names:

```
private void jMenuItem2ActionPerformed(java.awt.event.ActionEvent evt) {
    JOptionPane.showMessageDialog(jPanel2,"<html>Our Team:<br> FABY <br>
RIDITA <br> LISA<br> NAA <br> MUKHRU </html>");
}
```

9. The last button is to exit the program:

```
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
System.exit(0);    // TODO add your handling code here:
}
```

10. Here is the code for main:

```
public static void main(String args[]) {
    /* Set the Nimbus look and feel */
    //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code
(optional) ">
    /* If Nimbus (introduced in Java SE 6) is not available, stay with the default
look and feel.
    * For details see
http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
    */
    try {
        for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
            if ("Nimbus".equals(info.getName())) {
                javax.swing.UIManager.setLookAndFeel(info.getClassName());
                break;
            }
        }
    }
}
```

```

    }
}
} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(LotteryMachine.class.getName()).log(java.util.l
ogging.Level.SEVERE, null, ex);

    } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(LotteryMachine.class.getName()).log(java.util.l
ogging.Level.SEVERE, null, ex);

    } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(LotteryMachine.class.getName()).log(java.util.l
ogging.Level.SEVERE, null, ex);

    } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(LotteryMachine.class.getName()).log(java.util.l
ogging.Level.SEVERE, null, ex);

    }
//</editor-fold>

/* Create and display the form */
java.awt.EventQueue.invokeLater(() -> {
    new LotteryMachine().setVisible(true);
});
}

```


11.VARIABLES DECLARATION

```
private javax.swing.JButton jButton1;  
    private javax.swing.JButton jButton2;  
    private javax.swing.JButton jButton3;  
    private javax.swing.JButton jButton4;  
    private javax.swing.JLabel jLabel1;  
    private javax.swing.JLabel jLabel2;  
    private javax.swing.JLabel jLabel3;  
    private javax.swing.JLabel jLabel4;  
    private javax.swing.JLabel jLabel5;  
    private javax.swing.JMenu jMenu1;  
    private javax.swing.JMenu jMenu2;  
    private javax.swing.JMenuBar jMenuBar1;  
    private javax.swing.JMenuItem jMenuItem1;  
    private javax.swing.JMenuItem jMenuItem2;  
    private javax.swing.JPanel jPanel1;  
    private javax.swing.JPanel jPanel2;  
    private javax.swing.JPanel jPanel3;  
    private javax.swing.JTextField jTextField1;
```

12. This is the rest of the code with some functions and loop for choosing random element from an array and setup the speed of loop:

```
private JFileChooser jFileChooser;  
  
    private File file;  
  
    private String[] studentlist;
```

```
private Thread myThread;

boolean fileloaded;

private boolean flag = false;

private Music Startmusic;

private Music Stopmusic;


public String[] loadFile(File inputFile){

    Vector itemstring = new Vector();

    itemstring.clear();

    String itemperline;


    try{

        try (FileReader fileReader = new FileReader(inputFile); BufferedReader
bufferedReader = new BufferedReader(fileReader)) {

            while ((itemperline = bufferedReader.readLine()) != null){

                itemstring.addElement(itemperline);

            }

        }

    } catch (FileNotFoundException e) {

    } catch (IOException e) {

    }

    int item_len = itemstring.size();
```

```

String itemstring_out[] = new String[item_len];

for (int i=0;i<item_len;i++){
    itemstring_out[i] = (String)itemstring.elementAt(i);
}

return itemstring_out;

}

```

```

@Override

public void run() {

    int len = studentlist.length;           //declare variable for the length of array

    while (fileloaded == true && flag == true){ //loop while variables fileloaded
and flag are true

    int i = (int)(Math.random()*len);

    //choose random element from array

    System.out.println(studentlist[i]);

    jLabel1.setText(studentlist[i]);

    //display the result in jLabel2. studentlist - is variable for the file. [i] - is
element of the file.

    try {

        sleep(100);    //set the speed of loop

    } catch (InterruptedException ex) {

```

```
}
```

```
}
```

```
}
```

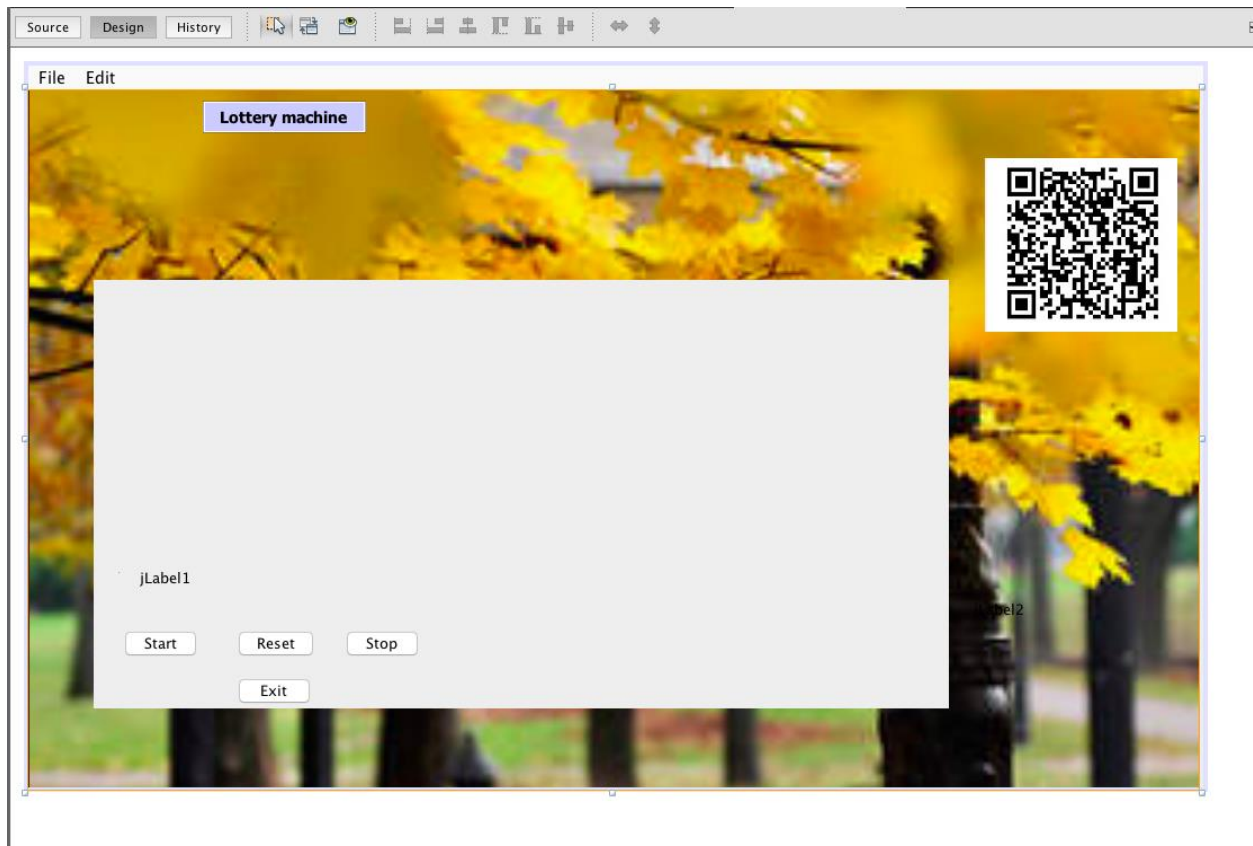
```
private InputStream newFileInputStream(File file) {
```

```
    throw new UnsupportedOperationException("Not supported yet."); //To  
change body of generated methods, choose Tools | Templates.
```

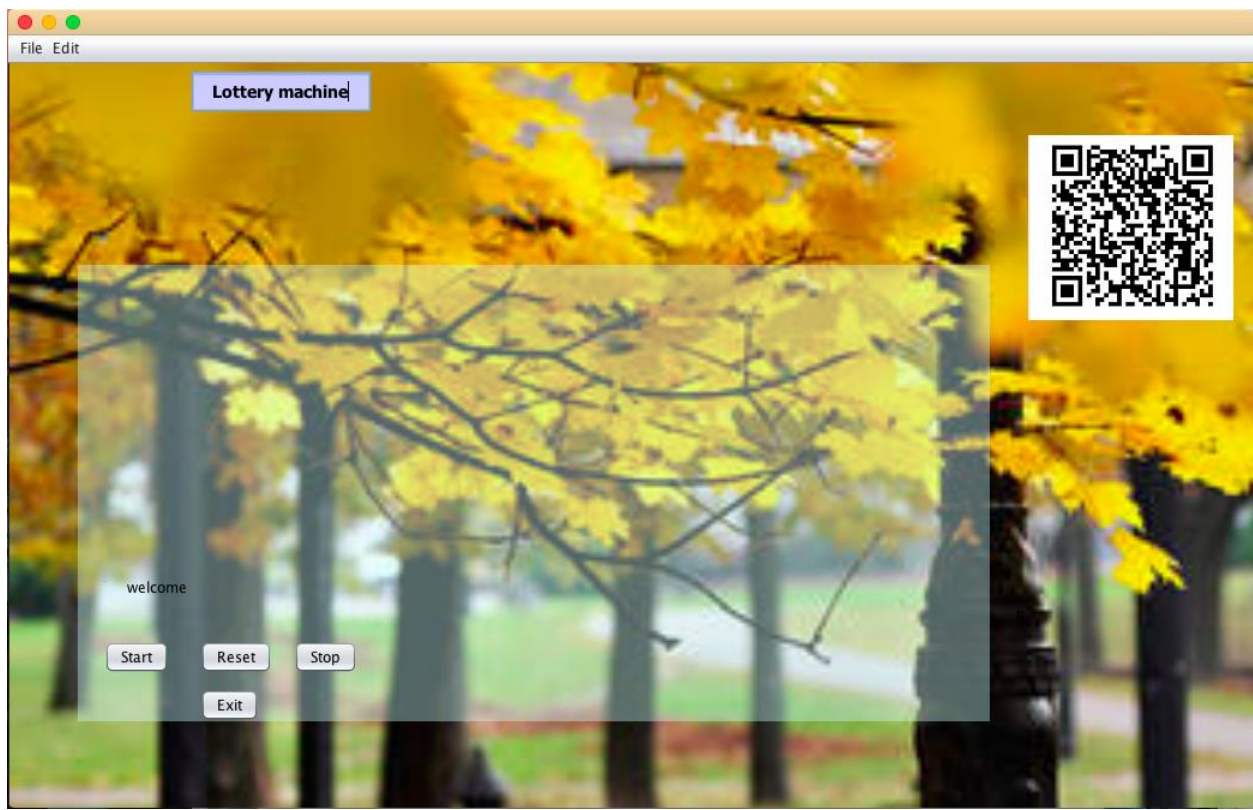
```
}
```

```
}
```

DESIGN PART OF OUR PROJECT



THE OUTPUT OF RESULT FOR OUR DESIGN PART



Requirements and schedule postmortem:

SCHEDULE	We met at least 3 days per week from 7pm to 9pm.
tasks for team members	We divided the work between each member. One of us is working with coding part, two is helping with researches and rest of us are preparing the reports and uploading in github.

Fabrice did the coding part while Lisa, Ridita, Bruce and Mukhrridin were helping them to find errors and gathering information about adding more features. As we all have less knowledge about java so we utilized each and every member's idea and put it all together to run the

code. On the other hand fabrice, lisa and ridita prepared the pdf files and bruce , mukhrridin made powerpoint file for presentation and they also helped to upload the files on github. Every member contributed their hand and worked really hard. We fixed a daily schedule to meet at least three days in evening according we planned so that we can discuss our ideas and research more about our project. We made sure that everyone is working equally in this project and getting chance to share their ideas as well. During the discussion we also learnt new things together which helped us a lot to build our software successfully.

Features and cuts: As far as our original SRS we couldn't completed the major functionality and features .We supposed to put an animated background but we couldn't get how to do it because we research about it and we found out that its complicated and going to take lot of times, so we decided to use an image as a background and a transparent background .Though we tried to create the feature but while running some of the features were not working properly.

Task assignments and completion:

Our team consists of five members and everyone has something to do as well as a group we had to work together and then we had to listen from each and every one about their ideas then we shared the work between us such as one was in charge of working with the coding part while rest of was helped to research, writing reports and presentation etc. here are the completion for each student given below:

FABRICE IRAZI
F17040123

I'm FABRICE IRAZI , I'm the organizer of team science. Since we got a project to work on we had to build a team our team was made by 5 people, I was the one to give them what to do so that we can work in harmony for sure everybody has to produce something. After that I had to organize some meetings in order to check how our work is going on, we met at least twice a week but when we have some assignment to do we met 4 times a week depending how the assignment is. During the assignment I had to check that everyone is participating to accomplish our goal. We had to share ideas point by point that costs us a lot of time by the way. To hear from everyone took us a lot of time plus sometimes we had to postpone our meet because some of us won't be available that time.

My particular work was to deal with the code part, our project was to build a lottery machine. I had to collect some ideas from my groupmates. First of all I presented them how we can build a lottery machine according to what I can do then they had to give me some new idea telling what to add some idea was so hard to accomplish ,some ideas was not hard, I successfully built a running code using java.The code was simple design with some 4 button ,restart, reset, stop, exit and with some label and textfield, I had to add a QR code and a good background with movement for images so I did add the QR code but I felt to add that new idea for a animation background.

When I was coding I had some problems sometimes I couldn't get how to correct an error sometimes I can install some applet in my netbeans , I created two project one for testing any new idea another one for implementing the new idea that works

We had many ideas to put in our project but unfortunately some was had to accomplish with the short time we have. We had to be careful so that we can at least get something to present.

With this project of building a lottery machine I learned a lot because I had to do some research so that I can correct an error or I can add some code.my job wasn't easy at all, I had to spend enough time on it for example I could spend 5 hours trying to found how I can make a button working the way I want, sometimes I will

spend even more than 6 hours and end up not finding what I want. But I enjoy my job because I was doing what I like. As the organizer of my group I made sure that everybody was comfortable with his or her job also comfortable with the meeting time.

ELIZABETH LISA

F17040114

The achievement of the group project is about lottery machine. A lottery is a game that involves the drawing of numbers for a prize. Few people win, while the vast majority does not. Actually it's a simple and it looks friendly and fairly because of the sound effect in the machine, it can help us for random selection just to pick the WINNER. In this course we planned to make a lottery machine which contains some modern stuffs such as QR code, registration, animation, music etc. As it is all about team work, I shared my ideas with my groupmates and discussed about how to make our projects more interesting. We search things in the internet like as the code, program how to add the music and animation in the project. We made a schedule to work on it and we distribute the work between us. For me I work on the QR code system. We decided to make the registration system by scanning the QR code. For that we create a group in we chat with all of our team member then we get the QR code from our group, after that we put the QR code in our system. The player needs to scan the QR code by their wechat. When they scan it then they will get a notification to join our we chat group. Then we will collect their user id and put all the stuffs in our system. After collecting all the player's ID we will recheck it and start the procedure. There is also a music in our project which will play during showing the result so I helped Fabrice to get the correct code by researching about it. While doing the code part, there were some errors for which reason we weren't able to run the project so I rechecked the code along with him and studied more about it to help him find solutions. I also contributed in giving ideas to make good presentation and helped them to get the idea of writing the slides and uploading in github. I spent at least 2-3 days in a week to work on this project along with my members and in my leisure I also tried to research by myself to find out how to add those features we listed. At last by doing this project as a team, I got to learn so many things I didn't know before which helped me a lot to improve my skills and gain more knowledge about

software engineering.

RIDITA ISLAM

F17040106

The topic we chose for software engineering project was Lottery machine. Our goal was to make a kind of lottery machine which is easy to use but with a bit interesting features. we wanted to make such a lottery machine where user can use it by scanning QR code and admin will be in charge of inputting the information and while showing the result there will be a transparent background image with some moving emoticons and winner's name.

As this is really hard to do it alone, our group showed a great unity in this. As our group consists of 5 members, we divided the works between each other. We made a schedule for meeting and discussing about it. it was an effective method of developing skills and sharpening existing ones. According to our plan, my work is to help my team members to research about different interesting features such as putting QR code, music, animations etc. besides that I also helped them to find errors in the code and the parts we didn't understand I searched on the net along with them to find a solution. As Bruce and mukhuriddin was in charge of writing the reports and preparing the presentation, I assisted them about how to write it according to the requirements and how to made the slides and what to add, how to add and what they should write and after they've finished preparing all the reports and presentation I rechecked if there's any typing mistake or any point they forgot to add. I also contributed in sharing ideas together with my group mates as in putting moving emoticons saying congratulations. As I am not really good at coding, I still tried to get some basic ideas from online so that I can help my team members to run this project without errors. Besides that, I also spent couple of hours in a week to research and study more about our project during my leisure time and tried to contribute my little knowledge in every meeting so that we can finish our project in time without any obstacles. Though we faced some difficulties during working on it, I tried my best to help my team members to solve it which also helped me to improve my skills and learning new things related to java and also I got a chance to improve my writing skills as well.

Wallace-Bruce Naa koshie
F17040122

To be able to design a lottery machine for it to work successfully, there must be some application for the project to function well, these functions can be name, phone numbers and so on for people who are involving in the lottery game. In the lottery machine when a start button pushed, the information of the list will scroll on a display window rapidly. Also When a stop button pushed, the scrolling will be stopped and display the information of a winner. And so by doing our project, we had several meetings by sharing several ideas for how to do the project, research, what to do, add, not to add, and how to write the report, writing code and also figuring out the correct files to add to make the project works perfectly and also have a good report as well

I was in charge of writing the report and by doing this I have to figure out the number of pages, the format so that the group can provide good assignment, also I contribute in sharing ideas together with my group mates. Also helped my group colleague by doing research and giving ideas of how to make the lottery machine, providing format which will make it fun and interesting for everyone to know how good our project is. Also after writing the report I took my time to correct every typing mistakes, spelling in the report before we present it in class and in the repository as well also to be able to write the report successfully I have to read carefully of the assignment paper giving by teacher and understand what it is required from teacher in the assignment paper to write about. Also I contribute in writing some part of the already three reports we have uploaded it in the repository and presentation as well. For the coding part because am not really good in coding I help the other group mates by giving my idea and knowledge about the lottery machine project. Also I contribute in the last project report taking my time to summing up everything together what to add, not to add for a good report before uploading it to the repository for our group. Writing the report I make sure I do what is asked for in the assignment paper and the knowledge from my group mates as well, again by the writing the report I need to take my time step by step, word by word so that I won't make mistakes which will affect my group mates and their score as well.

MUKHRIDDIN ZIYODULLAEV
F17040110

I was a part of group science and the project we were working on was to build a lottery machine. Though it sounds simple but to make it work we had to put so much effort. Our team leader discussed with us and gave a briefing about our project and then distributed the works between us to finish it on time.

As a member I was in charge of helping my fellow mates by doing researches on basic and additional features and collecting pictures for the presentation. Besides that I was also in charge of helping in writing part and uploading it on Github.

According to our plan, firstly I started doing research by myself so that I can share my own ideas to make our project interesting. As we fixed a schedule for discussion and working on it, I tried to keep my schedule free as much as possible. I shared my ideas with them and I tried to gather informations as they directed. Secondly I helped to write the reports as well. I was the one who noticed if we missed any part or which kind of problems we might face or what plans can make our project more successful etc

While preparing the presentation, I was the one who collected all the pictures and helped to put it altogether. Besides it I also shared my opinions about how to prepare it or make it look more presentable. As I have little knowledge about coding, I just tried to find initiative ideas about adding basic and additional features from internet and shared it with the members.

My contribution wasn't too much but still I worked really hard for the task i have assigned for. Each of our member worked really hard to make this project successful and I am really glad to be a part of it. Spending days and nights, unity , hard work made our project happen. By doing this I got a chance to know more about coding and basic idea of programming. I also learnt how a good team effort is and how to utilize our knowledge.