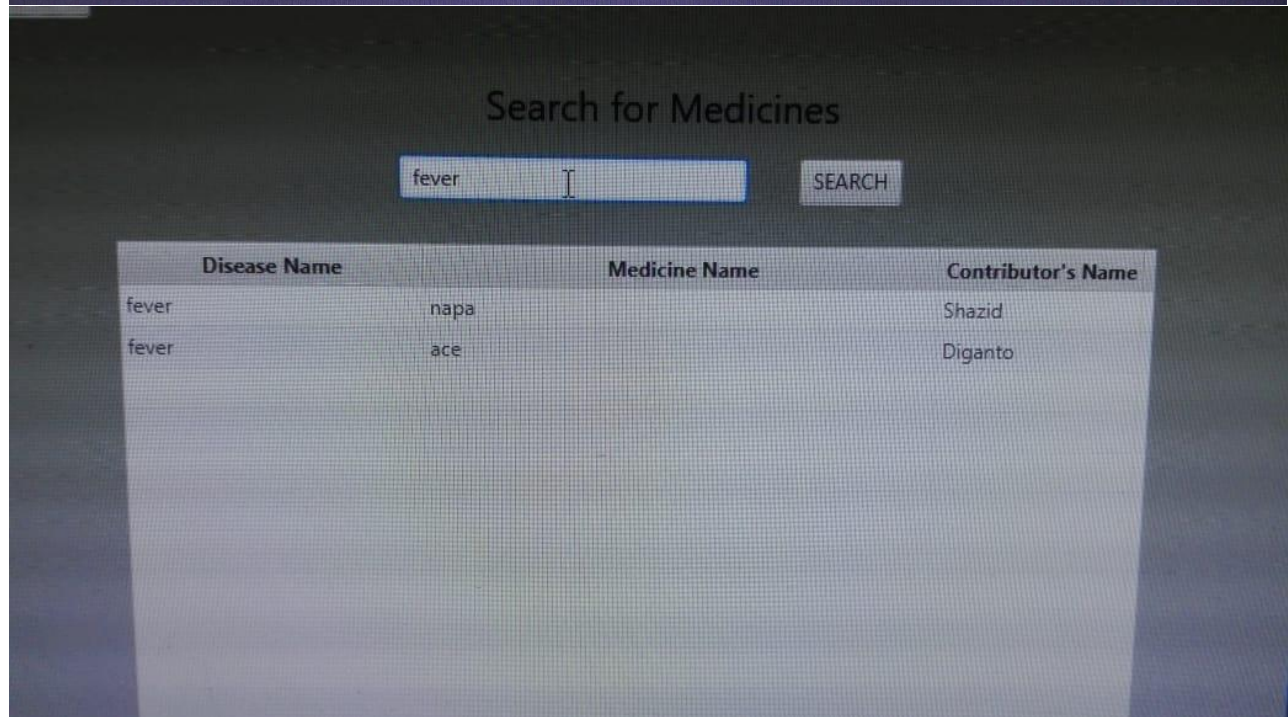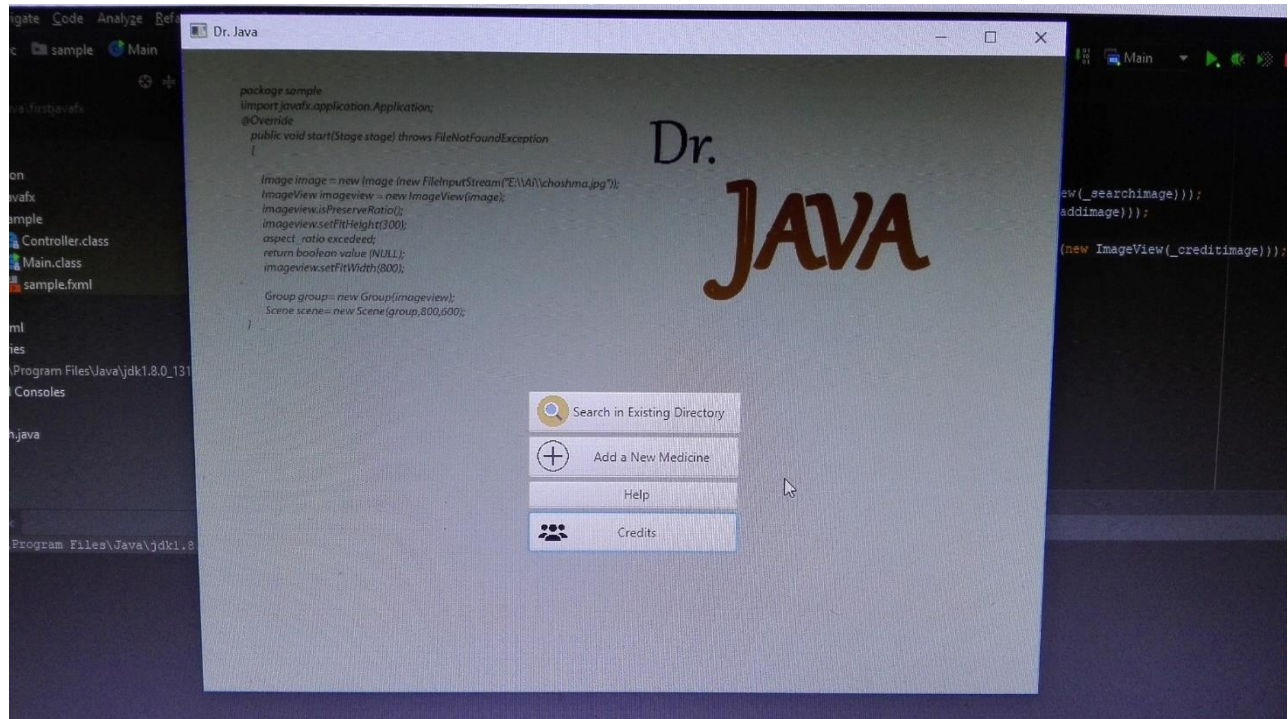| Project Name	:	Dr. Java
Project Type	:	Programming Project
Codes Used	:	JavaFX
Purpose	:	U/I for Patients, Medical Representatives and doctors to keep record of medicines.
		It will greatly help people for finding medicines in case of emergency and to create a more connected community.
Status	:	One-time project.
Project Year	:	2019
User Interface	:	

```java
package sample;

import javafx.application.Application;
import javafx.beans.property.SimpleStringProperty;
import javafx.collections.FXCollections;
import javafx.collections.ObservableList;
import javafx.scene.Scene;
import javafx.scene.control.*;
import javafx.scene.control.cell.PropertyValueFactory;
import javafx.stage.Stage;
import javafx.scene.Group;
import java.io.*;
import java.io.IOException;
import javafx.scene.text.Font;
import javafx.scene.text.Text;
import javafx.scene.image.Image;
import javafx.scene.image.ImageView;
import javafx.scene.paint.Color;

public class Main extends Application {
    private ImageView iconsetter (ImageView var)
    {
        var.setPreserveRatio(true);
        var.setFitWidth(30);
        var.setFitHeight(30);
        return var;
    }

    private void background_maker (Group group, Stage stage, String str)
    {
        Scene S = new Scene(group,900,550);
        S.setFill(Color.rgb(138,85,153));
        stage.setTitle("Dr. Java - "+str);
        stage.setScene(S);
        stage.show();
    }

    private void setSize (Control control, int x , int y)
    {
        control.setLayoutX(x);
        control.setLayoutY(y);
    }

    private void stream(String location, String[] array)
    {
        try
        {
            FileInputStream fstream = new FileInputStream(location);
            BufferedReader br = new BufferedReader(new InputStreamReader(fstream));

            for (int i = 0;;i++)
            {
                array[i]=br.readLine();
                if (array[i]==null)
                {
                    break;
                }
            }
        }
        catch (IOException g) { g.printStackTrace(); }
    }

    private void outstream (String location, String string)
    {
        try
        {
            File file = new File(location);
            FileWriter ostream = new FileWriter(file.getAbsoluteFile(),true);
```

```java
            ostream.write(string);
            ostream.write(System.getProperty("line.separator"));
            ostream.close();
        }
        catch ( IOException h) { h.printStackTrace();}
}

private TableView<entry> table = new TableView<entry>();
private final ObservableList<entry> data = FXCollections.observableArrayList();

@Override
public void start(Stage stage) throws FileNotFoundException
{
        //Home
        Image image = new Image (new FileInputStream("E:\\D\\djava.jpg"));
        ImageView imageview = new ImageView(image);
        imageview.isPreserveRatio();
        imageview.setFitHeight(550);
        imageview.setFitWidth(900);

        Image image2 = new Image (new FileInputStream("E:\\D\\bg.jpg"));
        ImageView imageview2 = new ImageView(image2);
        imageview2.isPreserveRatio();
        imageview2.setFitHeight(550);
        imageview2.setFitWidth(900);

        //Image
        Image _searchimage= new Image(new FileInputStream("E:\\D\\search.png"));
        Image _addimage= new Image (new FileInputStream("E:\\D\\add.png"));
        Image _creditimage = new Image (new FileInputStream("E:\\D\\credit.png"));
        Image _helpimage = new Image (new FileInputStream("E:\\D\\help.png"));

        //Buttons
        Button _search = new Button (" Search in Existing Directory ");
        Button _add= new Button ("      Add a New Medicine      ");
        Button _help = new Button ("               Help               ");
        Button _credit = new Button("              Credits              ");

        setSize(_search,600,100);
        setSize(_add,600,210);
        setSize(_help,600,310);
        setSize(_credit,600,410);
        //secondary stage start

        _search.setOnAction(e->
        {
            Button back_frm_search = new Button ("Back to Home");
            back_frm_search.setOnAction(f->
            {
                table.getItems().clear();
                Group group= new Group(imageview,_search,_add,_credit,_help);
                background_maker(group,stage,"HOME");
            });

            TextField searchbox = new TextField();
            searchbox.setPromptText("Type your symptoms");
            Text intro = new Text (340,80,"Search for Medicines");
            intro.setFont(new Font(26));
            intro.setFill(Color.rgb(255,255,255));

            Button search_button = new Button ("SEARCH");
            searchbox.setPrefSize(250,5);

            setSize(table,50,150);
            table.setPrefSize(800,450);

            TableColumn Disease_name = new TableColumn("Disease Name");
            Disease_name.setPrefWidth(240);
```

```java
            Disease_name.setCellValueFactory(
                    new PropertyValueFactory<entry,String>("firstName")
            );

            TableColumn Medicine_name = new TableColumn("Medicine Name");
            Medicine_name.setPrefWidth(200);
            Medicine_name.setCellValueFactory(
                    new PropertyValueFactory<entry,String>("lastName")
            );

            TableColumn Contributor_name = new TableColumn("Contributor's Name");
            Contributor_name.setPrefWidth(160);
            Contributor_name.setCellValueFactory(
                    new PropertyValueFactory<entry,String>("email")
            );

            TableColumn Consult = new TableColumn("Consultant");
            Consult.setPrefWidth(200);
            Consult.setCellValueFactory(
                    new PropertyValueFactory<entry,String>("consultant")
            );

            table.setItems(data);
            table.getColumns().addAll(Disease_name,Medicine_name,Consult,
    Contributor_name);

            search_button.setOnAction(f->
            {
                table.getItems().clear();
                String primary_input = searchbox.getText(), temp="";
                searchbox.clear();

                primary_input+=" ";

                String[] word_list = new String[10000];
                String[] name_directory = new String [10000];
                String[] details_directory = new String [10000];
                String[] medicine_directory = new String [10000];
                String[] contributor_directory = new String[10000];
                String[] consult_name = new String [10000];

                int string_len = primary_input.length(),flag=0;

                stream("E:\\D\\d_name.txt",name_directory);
                stream("E:\\D\\m_name.txt",medicine_directory);
                stream("E:\\D\\details.txt",details_directory);
                stream("E:\\D\\c_name.txt",contributor_directory);
                stream("E:\\D\\consultant.txt",consult_name);


                //searchbox processor
                for (int i=0;i<string_len;i++)
                {
                    String c= primary_input.substring(i,i+1);
                    if (c.equals(" "))
                    {
                        word_list[flag]=temp;
                        flag++;
                        temp="";
                    }
                    else temp+=c;
                }

                boolean isfound=false;

                //index searching
                for (int i=0;i<flag;i++)
                {
```

```java
                    for(int j=0;;j++)
                    {
                        if (name_directory[j]==null) break;
                        if (word_list[i].equals(name_directory[j]) || word_list[i].
equals(medicine_directory[j]) || word_list[i].equals(consult_name[j]))
                        {
                            data.add(new entry(name_directory[j],medicine_directory[j]
,contributor_directory[j],consult_name[j]));
                            isfound=true;
                        }
                    }
                    if (!isfound) data.add(new entry(" ",word_list[i]+"- does not
exists in the directory","",""));
                    if (isfound) isfound=false;
                }
            });

            setSize(searchbox,290,100);
            setSize(search_button,560,100);
            Group g_search = new Group (imageview2,searchbox,intro,back_frm_search,
search_button,table);
            background_maker(g_search,stage,"SEARCH");
        });

        _add.setOnAction(e->
        {
            Button back_frm_search = new Button ("Back to Home");
            back_frm_search.setOnAction(f->
            {
                table.getItems().clear();
                Group group= new Group(imageview,_search,_add,_credit,_help);
                background_maker(group,stage,"HOME");
            });

            Text intro = new Text (310,80,"Add A New Medicine");
            intro.setFont(new Font(26));
            intro.setFill(Color.rgb(255,255,255));

            TextArea disclaimer = new TextArea();
            setSize(disclaimer,170,130);
            disclaimer.setPrefSize(510,350);
            disclaimer.setText
                    ("Welcome\n\n" +
                        "We are really glad that you are contributing to make
this app better. But we recommend\n" +
                        "that you should read the manuals before you add
medicines. This is stated below.\n\n" +
                        "Be sure that the medicines you are going to add, is
safe, reliable, registered under\n" +
                        "a relevant organization, must not subversive to any
medical term and regulations of any\n" +
                        "country and you state that you have a knowledge or
experience on it.\n\n"+
                        "It is your moral responsibility that you should not
pretend someone or give any false\n"+
                        "representation. DR.JAVA is maintained by thousands of
contributors like you and we hope \n" +
                        "that you will be polite and your suggestions will not go
against our community standard.\n" +
                        "As medicines are sensitive things, please recheck your
submission and give corrections\n" +
                        "if needed. Best wishing from DR. JAVA developers team.\n
\n" +
                        "BY CLICKING 'I Agree' BUTTON BELOW, I, THEREFORE, STATE
THAT I AGREE TO DR. JAVA \n" +
                        "TERMS AND REGULATIONS. I MYSELF WILL BE RESPONSIBLE FOR
ANY KIND OF\n" +
                        "MISUSE OF THIS APPLICATION.\n"
```

```java
                );
disclaimer.setEditable(false);

Button agree = new Button("I Agree");
setSize(agree,390,500);
agree.setOnAction(f->
{
    Button back_frm_add_inside = new Button ("Back to Previous");
    back_frm_add_inside.setOnAction(g->
    {
        Group g_add= new Group(back_frm_search,intro,disclaimer,agree);
        background_maker(g_add,stage,"ADD");
    });

    Text intro2= new Text (330,80,"Medicine Panel");
    intro2.setFont(new Font(26));
    intro2.setFill(Color.rgb(255,255,255));

    Text C_name = new Text (150,135,"Contributor's Name     : ");
    Text D_name= new Text (150,175,"Name of the Disease    : ");
    Text M_name = new Text (150,215,"Name of the Medicine : ");
    Text Consultant_name = new Text (150,260,"Consultant Name        :");

    Text Comment = new Text (150,300,"Description              :");

    TextField C_tf = new TextField();
    TextField D_tf = new TextField();
    TextField M_tf = new TextField();
    TextArea Comment_tf = new TextArea();
    ChoiceBox consult_choice= new ChoiceBox();

    ObservableList cata_name = FXCollections.observableArrayList(
            "Anesthesiology(Pain and Surgery)", "Cardiology (Heart and
Blood Vessels)", "Critical Care Medicine",
            "Dentistry", "Dermatology (Skin)", "Emergency Medicines",
"Endocrinology (Hormones)", "First Aid",
            "Gastroenterology (Digestive System)", "General Practise
(Primary Care)", "Geriatrics (Adult General Health)",
            "Gynaecology (Female Reproductive System)", "Haematology
(Blood Circulatory System)", "Hepatology (Liver, Gallbladder, Biliary)",
            "Infectious Diseases", "Internal Medicine (Adult Diseases)",
"Neurology (Brain and Nervous System)", "Nephrology (Kidney)",
            "Obstetrics (Pregnancy)","Oncology (Cancer)", "Opthalmology
(Eye)", "Optometry (Visual System)", "Orthopaedics (Musculoskeletal System)",
            "Pathology (Pathogenesis)", "Pediatrics (Children General
Health)", "Preventive Medicine", "Psychiatry (Mental Disorders)",
            "Pulmonology (Respiration)", "Radiology (Medical Imaging)",
"Sports Medicine", "Rheumatology", "Urology (Urinary System)"
        );

    consult_choice.getItems().addAll(cata_name);
    C_tf.setPromptText("Enter your name");
    D_tf.setPromptText("Disease name");
    M_tf.setPromptText("Medicine name");
    Comment_tf.setPromptText("Describe the medicine (Please don't use
ENTER or line break)");
    Comment_tf.setPrefSize(400,150);

    setSize(C_tf,300,120);
    setSize(D_tf,300,160);
    setSize(M_tf,300,200);
    setSize(Comment_tf,300,285);
    setSize(consult_choice,300,245);

    Button submit = new Button("Submit");
    setSize(submit,350,450);

    //input processor line
```

```java
            submit.setOnAction(g->
            {
                String C = C_tf.getText();
                String D= D_tf.getText();
                String M = M_tf.getText();
                String Co = Comment_tf.getText();
                String Consult = (String) consult_choice.getValue();

                if (!C.equals("") && !D.equals("") && !M.equals("") && !Co.equals(
"") && !Consult.equals(""))
                {

                    outstream("E:\\D\\c_name.txt", C);
                    outstream("E:\\D\\d_name.txt", D);
                    outstream("E:\\D\\m_name.txt", M);
                    outstream("E:\\D\\details.txt", Co);
                    outstream("E:\\D\\consultant.txt",Consult);

                    Alert alert = new Alert(Alert.AlertType.CONFIRMATION);
                    alert.setTitle("Information Dialog");
                    alert.setHeaderText("Data Entry Successful");
                    alert.setContentText("We have successfully enlisted your
solution. Thanks for being with us");
                    alert.showAndWait();
                }
                else
                {
                    Alert alert = new Alert(Alert.AlertType.ERROR);
                    alert.setTitle("Information Dialog");
                    alert.setHeaderText("Data Entry unsuccessful");
                    alert.setContentText("Please Fill out the form correctly");
                    alert.showAndWait();
                }
                C_tf.clear();
                D_tf.clear();
                M_tf.clear();
                Comment_tf.clear();
            });

            Group inside_agree = new Group (intro2,C_name,D_name,M_name,Comment,
C_tf,D_tf,M_tf,Comment_tf,
                    back_frm_add_inside,submit,Consultant_name,consult_choice);
            background_maker(inside_agree,stage,"MEDICINE PANEL");
        });

        Group g_add= new Group(back_frm_search,intro,disclaimer,agree);
        background_maker(g_add,stage,"ADD");
    });

    _credit.setOnAction(e->
    {
        Button back_frm_search = new Button ("Back to Home");
        back_frm_search.setOnAction(f->
        {
            table.getItems().clear();
            Group group= new Group(imageview,_search,_add,_credit,_help);
            background_maker(group,stage,"HOME");
        });

        Text intro1= new Text (270,120,"Programming :");
        Text name1 = new Text(270,160,"SHARIF BIN HAQUE");

        Text intro2= new Text (270,210,"Inspection & Data Settings : ");
        Text name2 = new Text(270,250,"SAMIUL BASHAR SAMI");
        Text name3 = new Text (270,280,"DM NAFIS DIGANTO");

        Text school_name= new Text (100,330,"                Engineering University
School & College");
```

```java
            Text n_b= new Text(100,370, "                An associated JAVAFX
project to be displayed only in 11th EUSC Science Fair. All Rights reserved.");

            name1.setFill(Color.rgb(255,255,255));
            name2.setFill(Color.rgb(255,255,255));
            name3.setFill(Color.rgb(255,255,255));

            name1.setFont(new Font(30));
            name2.setFont(new Font(30));
            name3.setFont(new Font(30));
            school_name.setFont(new Font (26));

            Group g_credit = new Group (name1,name2,name3,school_name,intro1,intro2,
n_b,back_frm_search);
            background_maker(g_credit,stage,"CREDITS");


        });

        _help.setOnAction(e->
        {
            Button back_frm_search = new Button ("Back to Home");
            back_frm_search.setOnAction(f->
            {
                table.getItems().clear();
                Group group= new Group(imageview,_search,_add,_credit,_help);
                background_maker(group,stage,"HOME");
            });

            Text intro = new Text (350,80,"Helpline");
            intro.setFont(new Font(26));
            intro.setFill(Color.rgb(255,255,255));

            TextArea Statement = new TextArea();
            setSize(Statement,150,110);
            Statement.setPrefSize(530,430);
            Statement.setText
                    ("Welcome\n\n" +
                        "Thanks for letting us know that matter. Dr. Java has
been designed easy to use. At main page\n" +
                        "you will find four buttons:\n\n" +
                        "Search A Medicine: If you are a simple patient, it is
for you. Clicking here redirects you to\n" +
                        "a new page, where you will find a search box. Typing
here will results in what you want.\n\n" +
                        "Add a new Medicine: We recommend that this button should
be used only by the doctors.\n" +
                        "If you want to add medicines you can go here. First you
have to read an agreement then\n" +
                        "then you are to make any changes. Just enter the
information stated there and click submit.\n" +
                        "Don't leave any field blank.\n\n" +
                        "Help : You're currently here. Help button lets you
contact with Dr. Java technical team and\n" +
                        "guidelines for the new users.\n\n" +
                        "Credits: Contents under Credit button is completely
unchangeable. Owner information will be\n" +
                        "found here\n\n" +
                        "Thanks : Dr. Java maintenance and technical team\n\n"+
                        "For any query: Sharif Bin Haque , Engineering University
School & College\n"+
                        "                        E-mail: sharifbinhaque@gmail.com
\n"+
                        "                        Phone:  01675406160"
                    );
            Statement.setEditable(false);

            Group g_credit = new Group (imageview2,back_frm_search,Statement,intro);
```

```java
                background_maker(g_credit,stage,"HELP");
        });

        //Finishing Line
        Group group= new Group(imageview,_search,_add,_credit,_help);

        background_maker(group,stage,"HOME");
    }

    public static void main(String[] args)
    {
        launch(args);
    }

    public static class entry {

        private final SimpleStringProperty firstName;
        private final SimpleStringProperty lastName;
        private final SimpleStringProperty email;
        private final SimpleStringProperty consultant;

        private entry(String fName, String lName, String email, String consult) {
            this.firstName = new SimpleStringProperty(fName);
            this.lastName = new SimpleStringProperty(lName);
            this.email = new SimpleStringProperty(email);
            this.consultant = new SimpleStringProperty(consult);
        }

        public String getFirstName() {
            return firstName.get();
        }

        public void setFirstName(String fName) {
            firstName.set(fName);
        }

        public String getLastName() {
            return lastName.get();
        }

        public void setLastName(String fName) {
            lastName.set(fName);
        }

        public String getEmail() {
            return email.get();
        }

        public void setEmail(String fName) {
            email.set(fName);
        }

        public String getConsultant() {
            return consultant.get();
        }

        public void setConsultant(String fName) {
            consultant.set(fName);
        }
    }
}
```