*SSIGNMENT

SUBMITTED BY,

ANGEL SEBASTIAN - 11

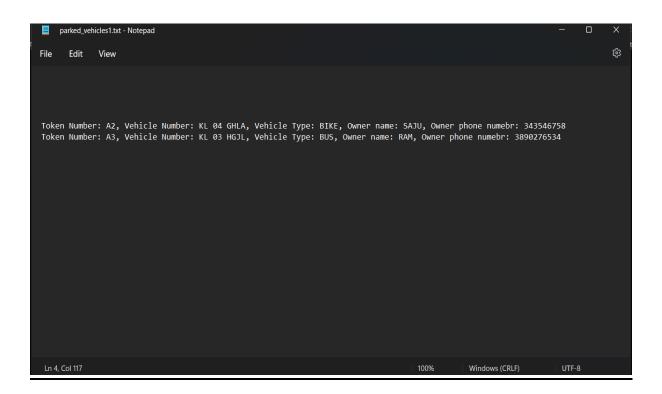
DEVANANDANA AK - 22

DEVIKA SAJI - 24

PHASE 1

```
System.out.println("Invalid choice. Please enter 1, 2, 3, 4,5.");
private static void addVehicle(Scanner scanner) {
   try (BufferedWriter writer = new BufferedWriter(new FileWriter("parked_vehicles1.txt", true))) {
        System.out.print("Token Number: ");
        String tokenNumber = scanner.nextLine();
        System.out.print("Vehicle Number: ");
        String vehicleNumber = scanner.nextLine();
        System.out.print("Vehicle Type: ");
String vehicleType = scanner.nextLine();
        System.out.print("Owner name: ");
        String ownerName = scanner.nextLine();
        System.out.print("Owner Phone Number: ");
        String phNumber = scanner.nextLine();
        writer.write("Token Number: " + tokenNumber + ", Vehicle Number: "+vehicleNumber+ ", Vehicle Type: " +vehicleType+ ", Owner name: "+ownerName+ ", Owner phone number: "+phNumb
        writer.newLine();
        System.out.println("Vehicle added successfully.");
    } catch (IOException e) {
        e.printStackTrace();
  private static void deleteVehicle(Scanner scanner) {
    System.out.print("Enter the Token Number of the vehicle to delete: ");
    String vehicleToDelete = scanner.nextLine();
```

OUTPUT



```
Parking Management System Menu:
PS C:\lab\ParkingManagement.java> javac ParkingManagementSystem1.java
PS C:\lab\ParkingManagement.java> java ParkingManagementSystem1
Parking Management System Menu:
1. Add a vehicle
2. Delete a vehicle
3. Search for a vehicle
4. Display all vehicle details
5. Exit
Enter your choice (1, 2, 3, 4 or 5): 1
Token Number: A1
Vehicle Number: KL 09 HGDF
Vehicle Type: CAR
Owner name: SHIFA
Owner Phone Number: 84653457487
Vehicle added successfully.
Parking Management System Menu:
1. Add a vehicle

    Delete a vehicle
    Search for a vehicle

4. Display all vehicle details
5. Exit
Enter your choice (1, 2, 3, 4 or 5): 1
Token Number: A2
Vehicle Number: KL 04 GHLA
Vehicle Type: BIKE
Owner name: SAJU
Owner Phone Number: 343546758
Vehicle added successfully.
Parking Management System Menu:
1. Add a vehicle
2. Delete a vehicle
3. Search for a vehicle
4. Display all vehicle details
Exit
Enter your choice (1, 2, 3, 4 or 5): 1
Token Number: A3
Vehicle Number: KL 03 HGJL
Vehicle Type: BUS
Owner name: RAM
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Owner name: RAM
Owner Phone Number: 3890276534
Vehicle added successfully.
Parking Management System Menu:
1. Add a vehicle
2. Delete a vehicle
3. Search for a vehicle
4. Display all vehicle details
5. Exit
Enter your choice (1, 2, 3, 4 or 5): 4
All Vehicle Details:

Token Number: A1, Vehicle Number: KL 09 HGDF, Vehicle Type: CAR, Owner name: SHIFA, Owner phone numebr: 84653457487
Token Number: A2, Vehicle Number: KL 03 HGJL, Vehicle Type: BIKE, Owner name: SAJU, Owner phone numebr: 3890276534
Darking Management System Menu:
1. Add a vehicle
2. Delete a vehicle
3. Search for a vehicle
4. Display all vehicle details
5. Exit
Enter your choice (1, 2, 3, 4 or 5): 3
Enter the Token Number: A3, Vehicle to search: A3
Vehicle details found: Token Number: A3, Vehicle Number: A1, Vehicle Type: BUS, Owner name: RAM, Owner phone numebr: 3890276534
Parking Management System Menu:
1. Add a vehicle
2. Delete a vehicle
3. Search for a vehicle
4. Display all vehicle to foen Number: A3, Vehicle Number: KL 03 HGJL, Vehicle Type: BUS, Owner name: RAM, Owner phone numebr: 3890276534
Parking Management System Menu:
1. Add a vehicle
2. Delete a vehicle
3. Search for a vehicle
4. Display all vehicle details
5. Exit
Enter your choice (1, 2, 3, 4 or 5): 3
Enter the Token Number: 64. Number: KL 09 HGDF, Vehicle Type: CAR, Owner name: SHIFA, Owner phone numebr: 84053457487
Vehicle details dended: Successfully.
1. Add a vehicle
4. Display all vehicle details
5. Exit
Enter your choice (1, 2, 3, 4 or 5): 2
Enter the Token Number: 64. Number: KL 09 HGDF, Vehicle Type: CAR, Owner name: SHIFA, Owner phone numebr: 84053457487
Vehicle details details deleted successfully.
1. Add a vehicle
```

PHASE 2

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| import java.swing.*;
| import java.awt.*;
| import java.awt.event.ActionEvent;
| import java.awt.event.ActionListener;
| import java.io.*;
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                                      private JTextArea displayArea;
                                       public ParkingGUI() {
    setTitle("Parking Management System");
    setSize(600, 400);
    setDefaultCloseOperation(JFrame.EXIT_CM_CLOSE);
    setLocationRelativeTo(null);
                                                JPanel mainPanel = new JPanel();
mainPanel.setLayout(new BoxLayout(mainPanel, BoxLayout.Y_AXIS));
                                                displayArea = new JTextArea(15, 50);
displayArea.setEditable(false);
JScrollPane scrollPane = new JScrollPane(displayArea);
                                                JButton addvehicleButton = new JButton("Add a Vehicle");
JButton deleteVehicleButton = new JButton("Delete a Vehicle");
JButton searchVehicleButton = new JButton("Search for a Vehicle");
JButton displayAllVehicleButton = new JButton("Display All Vehicles");
JButton displayAllVehicleButton = new JButton("Exit");
                                                 addVehicleButton.addActionListener(new ActionListener() {
   public void actionPerformed(ActionEvent e) {
      addVehicle();
   }
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                                               deleteVehicleButton.addActionListener(new ActionListener() {
   public void actionPerformed(ActionEvent e) {
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                                          searchVehicleButton.addActionListener(new ActionListener() {
   public void actionPerformed(ActionEvent e) {
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                                                        searchVehicle();
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                                         displayAllVehiclesButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        displayAllVehicles();
    }
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                                        exitButton.addActionListener(new ActionListener() {
   public void actionPerformed(ActionEvent e) {
        System.exit(status:0);
   }
}
                                        mainPanel.add(scrollPane);
mainPanel.add(addVehicleButton);
                                        mainPanel.add(deleteVehicleButton);
mainPanel.add(searchVehicleButton);
mainPanel.add(displayAllVehiclesButton);
                                         mainPanel.add(exitButton);
                                         add(mainPanel);
                                   private void addVehicle() {
   String tokenNumber = JOptionPane.showInputDialog(message:"Enter Token Number:");
   String vehicleNumber = JOptionPane.showInputDialog(message:"Enter Vehicle Number:");
   String vehicleType = JOptionPane.showInputDialog(message:"Enter Vehicle Type:");
   String ownerName = JOptionPane.showInputDialog(message:"Enter Owner Name:");
   String phNumber = JOptionPane.showInputDialog(message:"Enter Owner Phone Number:");
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                                         try (BufferedWriter writer = new BufferedWriter(new FileWriter(fileName: "parked_vehicles.txt", append:true))) {
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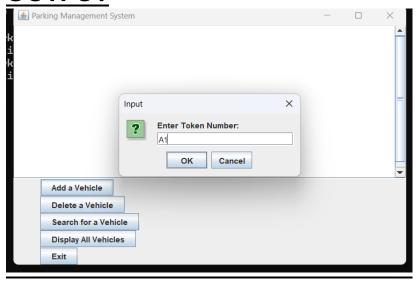
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                         private void deleteVehicle() {
String vehicleToOelete = JOptionPane.showInputDialog(message:"Enter the Token Number of vehicle to delete:");
                             File inputFile = new File(pathname: "parked_vehicles.txt");
File tempFile = new File(pathname: "temp_parked_vehicles.txt");
                              try (BufferedReader reader = new BufferedReader(new FileReader(inputFile));
| BufferedWriter writer = new BufferedWriter(new FileWriter(tempFile))) {
                                   String currentLine;
boolean vehicleFound = false;
                                   while ((currentLine = reader.readLine()) != null) {
    if (currentLine.contains("Token Number: " + vehicleToDelete)) {
        displayArea.append("Vehicle removed: " + currentLine + "\n");
        vehicleFound = true;
        continue;
}
                                        writer.newLine():
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                                   if (vehicleFound) {
    if (inputFile.delete() && tempFile.renameTo(inputFile)) {
        displayArea.append(str:"Vehicle details deleted successfully.\n");
}
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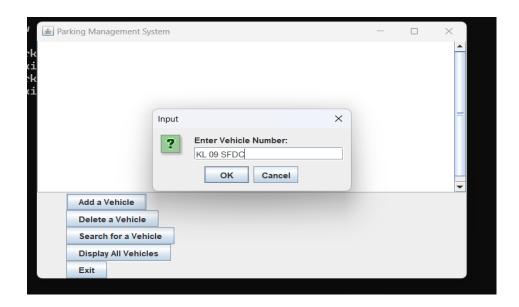
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                                                                                                                          // displayArea.append("Failed to delete vehicle details.\n");
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                                                                                                                 displayArea.append(str:"Vehicle not parked here!!\n");
                                                                                                    etch (IOException e) {
e.printStackTrace();
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                                                                      private void searchYehicle() {
    String vehicleToSearch = JOptionPane.showInputDialog(message:"Enter the Token Number of vehicle to search:");
                                                                                    try (BufferedReader reader = new BufferedReader(new FileReader(fileRame;"parked_vehicles.txt"))) {
    String currentLine;
    boolean vehicleFound = false;
                                                                                                    while ((currentLine = reader.readLine()) != null) {
    if (currentLine.contains("Token Number: " + vehicleToSearch)) {
        displayArea.append("Vehicle details found: " + currentLine + "\n");
        vehicleFound = true;
        break;
}
                                                                                                    if (!vehicleFound) {
    displayArea.append(str:"Vehicle not found.\n");
                                                                                             catch (IOException e) {
  e.printStackTrace();
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                                                                   private void displayAllvehicles() {
    try (BufferedReader reader = new BufferedReader(new FileReader(fileName:"parked vehicles.txt"))) {
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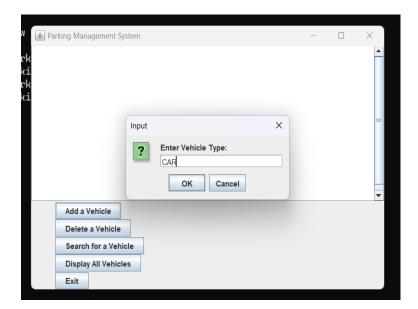
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                                           catch (IOException e) {
  e.printStackTrace();
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                                 private void displayAllVehicles() {
    try (BufferedReader reader = new BufferedReader(new FileReader(fileName:"parked_vehicles.txt"))) {
        String currentLine;
    }
}

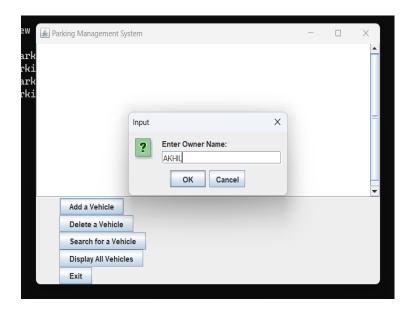
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                                                displayArea.append(str:"All vehicle Details:\n");
while ((currentLine = reader.readLine()) != null) {
    displayArea.append(currentLine + "\n");
                                            catch (IOException e) {
  e.printStackTrace();
                                Run|Debug
public static void main(String[] args) {
    Swingutilities.invokelater(new Runnable() {
        public void run() {
            new ParkingsUI().setVisible(bitrue);
        }
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OUTPUT

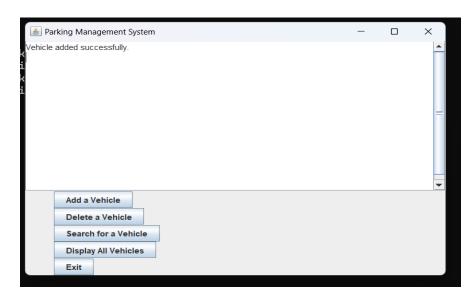


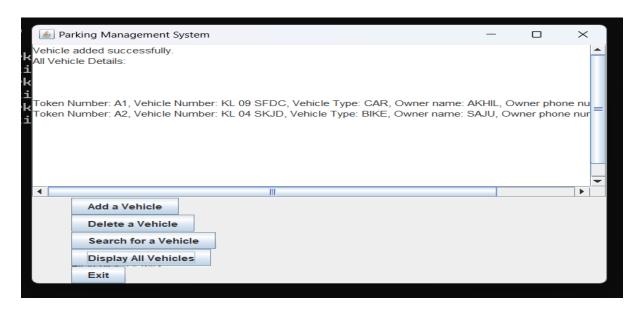


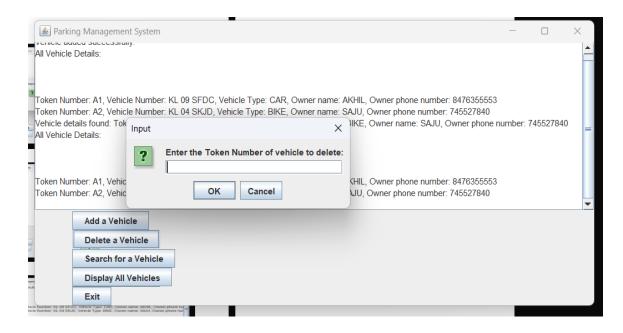


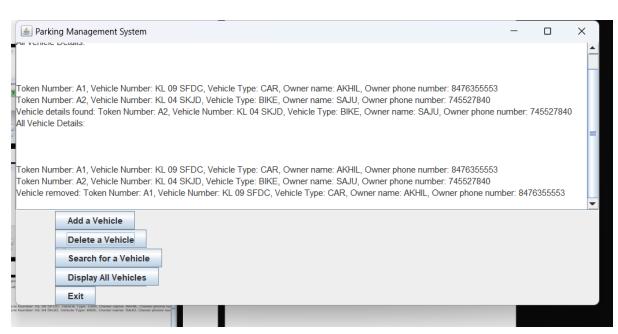












PHASE 3

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import java.sql.*;
class Park {
  private static final String JDBC URL =
"jdbc:mysql://localhost:3306/db";
  private static final String USERNAME = "root";
  private static final String PASSWORD = "adng@4490";
  void insertPark(String token, String vehtype, String vehno,
String owner, String owno) {
    try (Connection connection = getConnection();
       PreparedStatement preparedStatement =
connection.prepareStatement(
           "INSERT INTO parkn(token, vehtype, vehno,
owner, owno) VALUES (?, ?, ?, ?, ?)")) {
      preparedStatement.setString(1, token);
      preparedStatement.setString(2, vehtype);
      preparedStatement.setString(3, vehno);
      preparedStatement.setString(4, owner);
      preparedStatement.setString(5, owno);
      int rowsAffected =
preparedStatement.executeUpdate();
      if (rowsAffected > 0) {
```

```
System.out.println("Park details inserted
successfully.");
      } else {
        System.out.println("Failed to insert token
details."):
      }
    } catch (SQLException e) {
      e.printStackTrace();
    }
  }
  void show() {
    try (Connection connection = getConnection();
       Statement statement =
connection.createStatement():
       ResultSet resultSet =
statement.executeQuery("SELECT * FROM parkn")) {
      while (resultSet.next()) {
         String n = resultSet.getString("token");
         String i = resultSet.getString("vehno");
         String p = resultSet.getString("vehtype");
         String s = resultSet.getString("owner");
         String a = resultSet.getString("owno");
         System.out.println();
         System.out.println("Name: " + n);
         System.out.println("Vehcle no: " + i);
         System.out.println("vehtype: " + p);
         System.out.println("owner: " + s);
```

```
System.out.println("Owner phone no: " + a);
      }
    } catch (SQLException e) {
      e.printStackTrace();
    }
  }
  void showowner(String owner) {
    try (Connection connection = getConnection();
       PreparedStatement preparedStatement =
connection.prepareStatement(
           "SELECT * FROM parkn WHERE owner = ?")) {
      preparedStatement.setString(1, owner);
      ResultSet resultSet =
preparedStatement.executeQuery();
      while (resultSet.next()) {
        String n = resultSet.getString("token");
        String i = resultSet.getString("vehno");
        String p = resultSet.getString("vehtype");
        String s = resultSet.getString("owner");
        String a = resultSet.getString("owno");
        System.out.println();
        System.out.println("Name: " + n);
        System.out.println("Vehicle no: " + i);
        System.out.println("Vehicle type: " + p);
        System.out.println("owner: " + s);
        System.out.println("Owner phone no: " + a);
```

```
}
    } catch (SQLException e) {
      e.printStackTrace();
    }
  }
  void deleteByvehno(String vehno) {
    try (Connection connection = getConnection();
       PreparedStatement preparedStatement =
connection.prepareStatement(
           "DELETE FROM parkn WHERE vehno = ?")) {
      preparedStatement.setString(1, vehno);
      int rowsAffected =
preparedStatement.executeUpdate();
      if (rowsAffected > 0) {
        System.out.println("Park with ID " + vehno + "
deleted successfully.");
      } else {
        System.out.println("No token found with ID " +
vehno + ".");
      }
    } catch (SQLException e) {
      e.printStackTrace();
  }
```

```
private static Connection getConnection() throws
SQLException {
    return DriverManager.getConnection(JDBC URL,
USERNAME, PASSWORD);
}
class ParkGUI extends JFrame {
  private Park token = new Park();
  private JTextField tokenField;
  private JTextField vehtypeField;
  private JTextField vehnoField;
  private JTextField ownerField;
  private JTextField ownoField;
  public ParkGUI() {
    setTitle("Parking Area");
    setDefaultCloseOperation(JFrame.EXIT ON CLOSE);
    setSize(500, 400);
    setLocationRelativeTo(null);
    createGUIComponents();
    setVisible(true);
  }
  private void createGUIComponents() {
    JPanel panel = new JPanel();
    panel.setLayout(new GridLayout(11, 2));
```

```
JLabel tokenLabel = new JLabel("token:");
    tokenField = new JTextField();
    JLabel vehtypeLabel = new JLabel("vehtype:");
    vehtypeField = new JTextField();
    JLabel vehnoLabel = new JLabel("vehno:");
    vehnoField = new JTextField();
    JLabel ownerLabel = new JLabel("owner:");
    ownerField = new JTextField();
    JLabel ownoLabel = new JLabel("owno:");
    ownoField = new JTextField();
    JButton insertButton = new JButton("Insert Park
Details");
    JButton viewAllButton = new JButton("View All");
    JButton ownerButton = new JButton("Search by
owner");
    JButton deleteByvehnoButton = new JButton("Delete by
vehicle no");
    JButton exitButton = new JButton("Exit");
    panel.add(tokenLabel);
    panel.add(tokenField);
    panel.add(vehtypeLabel);
    panel.add(vehtypeField);
    panel.add(vehnoLabel);
    panel.add(vehnoField);
    panel.add(ownerLabel);
    panel.add(ownerField);
    panel.add(ownoLabel);
    panel.add(ownoField);
```

```
panel.add(insertButton);
    panel.add(viewAllButton);
    panel.add(ownerButton);
    panel.add(deleteByvehnoButton);
    panel.add(exitButton);
    insertButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        String inputToken = tokenField.getText();
        String vehtype = vehtypeField.getText();
        String vehno = vehnoField.getText();
        String owner = ownerField.getText();
        String owno = ownoField.getText();
        token.insertPark(inputToken, vehtype, vehno,
owner, owno);
        clearFields();
      }
    });
    viewAllButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        token.show();
        clearFields();
      }
    });
    ownerButton.addActionListener(new ActionListener() {
      @Override
```

```
public void actionPerformed(ActionEvent e) {
        String owner = ownerField.getText();
        token.showowner(owner);
        clearFields();
      }
    });
    deleteByvehnoButton.addActionListener(new
ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        String vehno = vehnoField.getText();
        token.deleteByvehno(vehno);
        clearFields();
      }
    });
    exitButton.addActionListener(new ActionListener() {
      @Override
      public void actionPerformed(ActionEvent e) {
        System.out.println("Exiting.....");
        System.exit(0);
      }
    });
    add(panel);
  }
  private void clearFields() {
    tokenField.setText("");
    vehtypeField.setText("");
```

```
vehnoField.setText("");
  ownoField.setText("");
  ownoField.setText("");
}

public static void main(String[] args) {
  try {
    Class.forName("com.mysql.cj.jdbc.Driver");
  } catch (ClassNotFoundException e) {
    e.printStackTrace();
  }

SwingUtilities.invokeLater(() -> new ParkGUI());
}
```

OUTPUT

