**Code Explanation for Assignment # 3**

**Person Form**

1. **Imports:**
   * The program uses JavaFX's Application, Scene, and layout classes to build the GUI (TextField, ComboBox, Button, Label, GridPane), and a FileChooser for uploading images. ArrayList is used for storing the Person objects.
2. **Class Definition:**
   * PersonForm extends Application, which is necessary for creating JavaFX applications. The start() method, which is called automatically when the application runs, is overridden to set up the user interface.
3. **personList:**
   * An ArrayList<Person> is declared to hold the list of people whose information is filled in and saved by the user. Each entry is represented by a Person object.
4. **Grid Layout:**
   * The form is designed using a GridPane. This layout arranges form fields (like name, CNIC, etc.) in a grid where each input field is paired with a label in a separate row, making it easy to align labels and fields vertically.
5. **Form Fields:**
   * Text Fields: Used to collect data such as Name, Father Name, CNIC, and City.
   * Date Picker: For users to select a date, such as a birth date.
   * ComboBox: Provides a dropdown for gender selection (Male, Female, Other).
   * File Upload: A button labeled "Upload Image" that opens a file chooser dialog. The path of the selected image is shown in a Label, and the image can be displayed if needed.
6. **Button Actions:**
   * Upload Image Button: Triggers a file dialog that lets users choose an image file. Once selected, the path to the file is displayed, and optionally, the image can be displayed in the form (though it’s not shown in the current version).
   * Save Button: Gathers the values from all form fields. If any field is empty, it prompts the user to fill in the missing information. If all fields are valid, it creates a Person object and adds it to the personList.
7. **Creating and Displaying the Form:**
   * The form’s layout is created by adding the fields and buttons into the GridPane. This layout is then wrapped into a Scene, which is set on the primaryStage to be displayed to the user.
8. **Main Method:**
   * The main() method simply calls launch(args) to start the JavaFX application.

**Flow:**

* The user inputs personal details (name, father’s name, CNIC, etc.), selects gender, picks a date, and optionally uploads an image.
* Upon clicking Save, the entered details are checked for validity. If all fields are filled, a new Person object is created and stored in the personList. After saving, the form is reset for the next entry.

