

# Exercise OOP, Array, GUI

Create a simple form to collect customer data which consist of fullname, address, age, and city. Customer data should be stored into ArrayList and then displayed into table.

The screenshot shows a Java Swing window titled "CUSTOMER DATA". It contains the following elements:

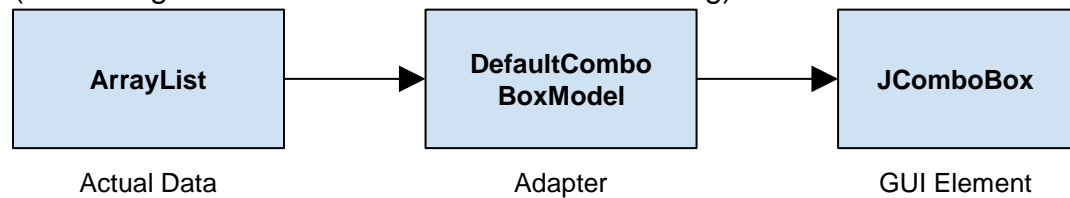
- Fullname :** A text input field containing "Raden".
- Address :** A text area containing "Tampang Miring".
- City :** A dropdown menu with "Medan" selected.
- Age :** A text input field containing "33".
- SUBMIT** button.
- Table:** A table with 3 columns: Fullname, Age, and City. It contains 4 rows of data.

| Fullname | Age | City       |
|----------|-----|------------|
| Andre    | 24  | Surabaya   |
| Erdna    | 19  | Yogyakarta |
| Ander    | 28  | Makasar    |
| Daren    | 26  | Jakarta    |

## Follow these instructions!

1. Create "City" class, which have data member: city\_id (int), name (String). Don't forget to create constructor and also getter setter.
2. Create "Customer" class which have data member: fullname(String), age(int), address(String), city\_id(int)
3. Create JFrame class and then design GUI as like picture above.
4. Define four variable in JFrame:
  - a. ArrayList<City> cityList -> It's an array to store all city data
  - b. ArrayList<Customer> customerList -> storing customer data

- c. DefaultComboBoxModel modelCity -> its an adapter for combo box object (refer to figure below to have better understanding)



- d. DefaultTableModel modelCustomer -> its an adapter for JTable

5. Inside JFrame constructor, initialize city data. You may use following example to construct city data:

```
cityList.add(new City(1, "Surabaya"));  
cityList.add(new City(2, "Jakarta"));  
cityList.add(new City(3, "Yogyakarta"));  
cityList.add(new City(4, "Denpasar"));  
cityList.add(new City(5, "Makasar"));  
cityList.add(new City(6, "Medan"));
```

Setup default data model for combo box using those city data

6. Create event listener when submit button being pressed:
- Create new customer object with data retrieved from GUI form
  - Add this customer data into arraylist customerList
  - Reset GUI form

### BONUS:

7. When user click a data in table, display customer selected data using message box.

