QUESTION – ERROR DEBUGGING **(50 Marks)**

You are given Program 1 (**`ReTest2.java`**) with 25 errors (syntax errors and/ or logical errors). You are required to debug the errors, compile, and run the program. You are **<u>NOT ALLOWED</u>** to **remove** any statements or add a new statement(s) in the program. You are only allowed to **update** the statements provided in the program. The program should produce the output in **Figure 1**.

```
<<<<<< List of flights >>>>>>

Flight Number: MH1037
Destination: Johor Bahru
Departure: 19:05
Arrival: 20:00
Number of Passengers: 2

Passengers Details:
Name: Abu Jani  Age: 5  Parent Name: Tina Mat
Name: Lim Chua  Age: 44 Job Title: Accountant

Flight Number: Z98805
Destination: Kota Kinabalu
Departure: 18:15
Arrival: 21:05
Number of Passengers: 4

Passengers Details:
Name: Ana Alif  Age: 35 Job Title: Engineer
Name: Rin Liew  Age: 48 Job Title: Engineer
Name: Ani Daud  Age: 11 Parent Name: Adli Aris
Name: Ali Alwi  Age: 23 Job Title: Accountant
```

Figure 1

After you get all the outputs as stated above, please submit your **successful** program named **`ReTest2.java`** through the UTM’s e-learning system.

```java
//Program 1
import java.util.*;

class Time {
  private int hour, minute;

  public Time(int h, int m) {
     hour = h;
     minute = h;
  }

  public String dispTime() {
     if (hour < 10)
        return hour + ":0" + minute;
     else
        return hour + ":" + minute;
  }
}

class Passenger {
  private String name, parentName, job;
  int age;

  public Passenger(String name, int age) {
     name = name;
     age = age;
     parentName = job = null;
  }

  public void setPName(String pn) {
     parentName = pn;
  }

  public void setJob(String j) {
     j = job;
  }

  public void getAge() {
     return age;
  }

  public void dispDetails() {
     System.out.print("Name: " + name + "\tAge: " + age);
     if (age < 12)
        System.out.println("\tJob Title: " + job);
     else
        System.out.println("\tParent Name: " + parentName);
  }
}

class Flight {
  private String id, destination;
  private Time depart, arrival;
  private Vector <Passenger> passengerList;

  public Flight(String i, String d, Time dp, Time a) {
     id = i;
     destination = d;
     depart = dp;
     arrival = a;
     passengerList = new Vector();
  }

  public void addPassenger(Passenger p) {
     passengerList.add(p);
  }

  public void dispInfo() {
     System.out.println("Flight Number: " + id);
     System.out.println("Destination: " + destination);
     System.out.println("Departure: " + depart.dispTime());
     System.out.println("Arrival: " + arrival.dispTime());
     System.out.println("Number of Passengers: " + passengerList.size());
     System.out.println("\nPassengers Details:");

     for (int i = 0; i < passengerList.size(); i++)
        passengerList.dispDetails();
  }
}

public class ReTest2 {
  public static void main(String[] args) {
     ArrayList <Flight> flightList = new ArrayList();

     Flight [] f = {new Flight("MH1037", "Johor Bahru", Time(19, 5), Time(20,
                    0)), new Flight("Z98805", "Kota Kinabalu", Time(18, 15),
                    Time(21, 5))};
     Passenger [] p = {new Passenger("Abu Jani", 5), new Passenger("Ana
                       Alif", 35), new Passenger("Ali Alwi", 23), new
                       Passenger("Ani Daud", 11), new Passenger("Lim Chua",
                       44), new Passenger("Rin Liew", 48)};
     String [] j = {new String("Accountant"), new String("Engineer")};
     String [] pn = {new String("Tina Mat"), new String("Adli Aris")};

     for (int i = 0; i < p.size(); i++)
        if (p.getAge() < 12)
           p.setPName(pn[i%2]);
        else
           p.setJob(j[i%2]);

     flightList.add(f[0]);
     flightList.add(f[1]);

     flightList.get(0).addPassenger(p[0]);
     flightList.get(1).addPassenger(p[5]);
     flightList.get(0).addPassenger(p[1]);
     flightList.get(0).addPassenger(p[3]);
     flightList.get(1).addPassenger(p[4]);
     flightList.get(1).addPassenger(p[2]);

     System.out.println("<<<<<< List of flights >>>>>>\n");
     for (int i = 0; i < flightList.length; i++) {
        flightList.dispInfo();
        System.out.println();
     }
  }
}
```