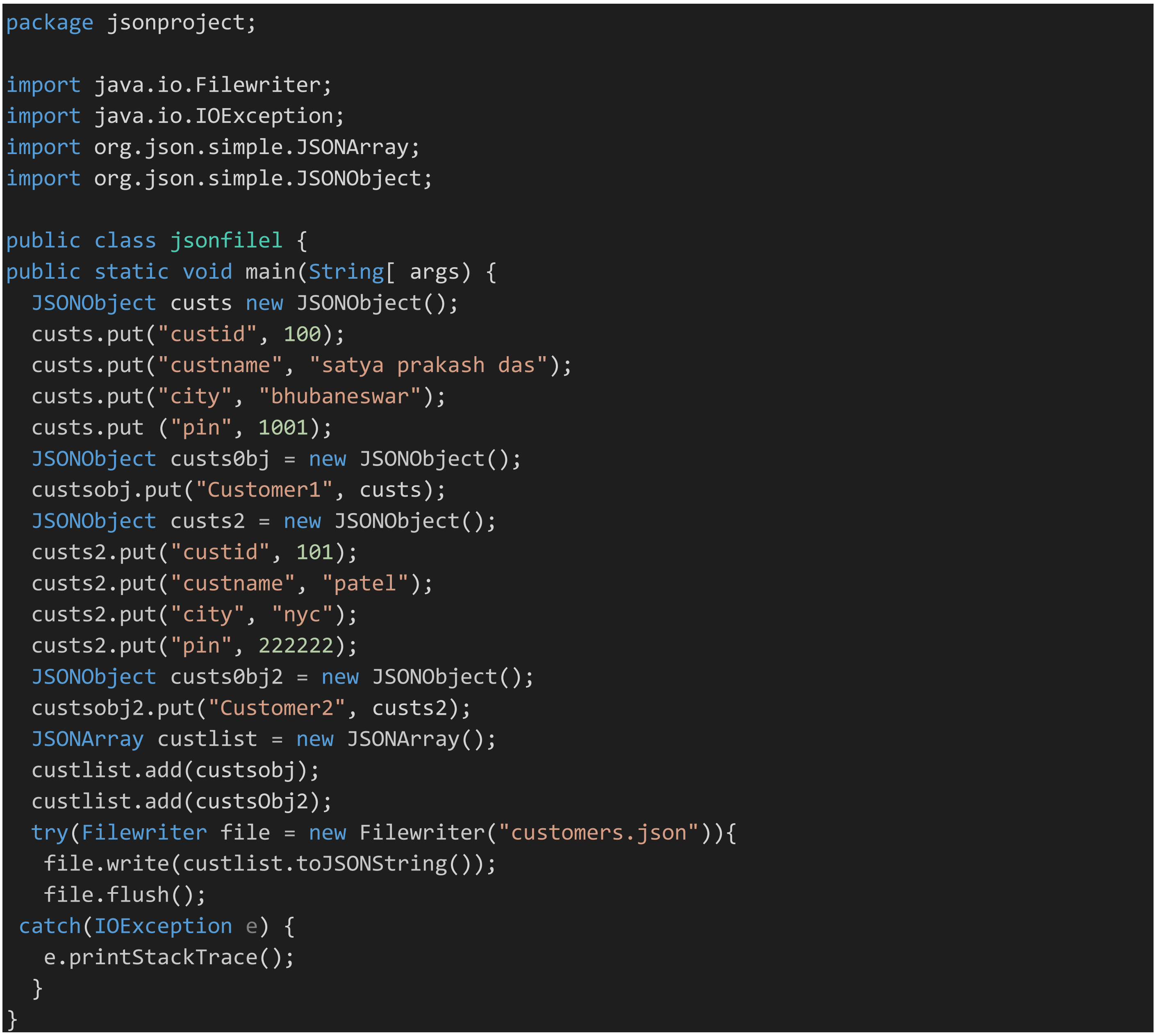
Assignment 1:

Problem Statement:

- **Create a json file called customers.json, with fields custId, custName, city and pin and populate with some data.**
- **Write a hibernate program to read the json data from the json file and store it in the Postgre mysql database.**

Source Code:

jsonfile1.java



```
package jsonproject;

import java.io.Filewriter;
import java.io.IOException;
import org.json.simple.JSONArray;
import org.json.simple.JSONObject;

public class jsonfilel {
public static void main(String[ args) {
  JSONObject custs new JSONObject();
  custs.put("custid", 100);
  custs.put("custname", "satya prakash das");
  custs.put("city", "bhubaneswar");
  custs.put ("pin", 1001);
  JSONObject custs0bj = new JSONObject();
  custsobj.put("Customer1", custs);
  JSONObject custs2 = new JSONObject();
  custs2.put("custid", 101);
  custs2.put("custname", "patel");
  custs2.put("city", "nyc");
  custs2.put("pin", 222222);
  JSONObject custs0bj2 = new JSONObject();
  custsobj2.put("Customer2", custs2);
  JSONArray custlist = new JSONArray();
  custlist.add(custsobj);
  custlist.add(custsObj2);
  try(Filewriter file = new Filewriter("customers.json")){
   file.write(custlist.toJSONString());
   file.flush();
 catch(IOException e) {
   e.printStackTrace();
  }
}
```

Customer.json

```json
[ {
  "Customer1" : {
   "pin" : 1001,
   "city" : "Chandigarh",
   "custid" : 100,
   "custname" : "Akshit"
  }
  }, {
  "Customer2" : {
   "pin" : 2001,
   "city" : "Delhi",
   "custid" : 101,
   "custname" : "Amisha"
  }
  } ]
```

Assign1.java

```java
import org.hibernate.Session;
import org.hibernate. SessionFactory;
import org.hibernate. Transaction;
import org.hibernate.cfg.Configuration;
import java.net.URL;
import java.util.List;
public class assign1 {
    private static SessionFactory factory;
   public static void main(String args[]) throws Exception {
        setUp();
        URL file_path = Main.class.getClassloader().getResource("customers.json");
        JSONProcessor jsonProcessor = new JSONProcessor (file_path.getPath());
        List<Customer> customer = jsonProcessor.parseFile();
        customer.forEach(Main::addCustomer);
    private static void setUp() {
        factory = new Configuration()
                 .addAnnotatedClass(Customer.class)
                 .configure()
                 .buildsessionFactory();
    private static Integer addCustomer(Customer customer) {
        Session session = factory.openSession();
        Transaction tx = session.beginTransaction();
        Integer customerId = (Integer) session.save(customer);
        tx.commit();
        return customerId;
    }
  }
}
```

Customer.java

```java
import javax.persistence.*;

@Entity
@Table(name = "colibri.customer")
public class Car {
  @Column(name = "cusId")
  private String cusID;
  @Column(name = "cusName")
  private String cusName;
  @Column(name = "city")
  private String city;
  @Column(name = "pin")
  private int pin;
  @Id
  @GeneratedValue(strategy = GenerationType.IDENTITY)
  @Column(name = "id")
  private int id;

  public Customer (String cusID, String cusName, String city,int pin) {
        this.cusID = cusID;
        this.cusName = cusName;
        this.city city;
        this.pin = pin;
    }

  public Customer()
    {
    public int getPin() {
        return pin;
    }
    public String getCity() {
        return city;
    }
    public String getcusName () {
        return cusName;
    }
  }
}
```

Customers.json

```json
{
  "customers": [
     {
        "custId": "2001",
        "custName": "Akshit",
        "city": "Chandigarh",
        "pin": 101
     },
     {
        "custId": "2002",
        "custName": "Amisha Sahu",
        "city": "Delhi",
        "pin": 102
     },
     {
        "custId": "2003",
        "custName": "Monty",
        "city": "Bathinda",
        "pin": 103;
     }
}
```

Customer.java

```java
import org.json.simple.JSONArray;
import org.json.simple.JSONObject;
import org.json.simple.parser.JSONParser;
import org.json.simple.parser.ParseException;
import java.io.FileReader;
import java.io.IOException;
import java.uti1.List;
import java.util.stream.Collectors;

public class JSONProcessor {
  private final String targetFilePath;

  JSONProcessor(String targetFilePath) {
        this.targetFilePath = targetFilePath;
   public List<Customer> parseFile() throws IOException, ParseException (
        JSONParser parser new J5ONParser();
         JSONOB ject json - (JSONObject) parser.parse(new FileReader (targetFilePath));
        JSONArray customers - (JSONArray) json.get("customers");
        List<JSONObject> customerlist = (List<JSONObject>)
customers.stream().collect(Collectors.tolist());
        return customerList.stream()
            .map (x -> new Customer ((String) x.get("cusId"), (String) x.get("cusName"),
(String) x.get("city"), (Double) x.get("pin"))
             .collect(Collectors.tolist());
            )
   )
    }
}
```