MASTER OF SCIENCE IN INFORMATION TECHNOLOGY SPECIALIZING IN
ENTERPRISE APPLICATIONS DEVELOPMENT
SLIIT METROPOLITAN CAMPUS
BOC MERCHANT TOWER, NO #28, ST MICHAE'S ROAD,
COLOMBO 03, SRI LANKA

Enterprise Software Analysis & Design
SE5060: EXERCISE 9

N. G. Pradeep Sanjaya

MS20921576

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ANSWER

Classes

AdapterTest.java

```java
package com.sliit;

import com.sliit.impl.PersonImpl;
import com.sliit.impl.RemotePersonImpl;

public class AdapterTest {
  public static void main(String[] args) {
    Person person = new PersonImpl();
    RemotePerson remotePerson = new RemotePersonImpl();

    System.out.println("Person says");
    System.out.println(person.generateFullName());
    System.out.println(person.generateFullAddress());

    System.out.println("\nRemote person says");
    System.out.println(remotePerson.getFirstName());
    System.out.println(remotePerson.getLastName());
    System.out.println(remotePerson.getAddressLine1());
    System.out.println(remotePerson.getAddressLine2());

    System.out.println("\nPerson adapter says");
    PersonAdapter personAdapter = new PersonAdapter(remotePerson);
    System.out.println(personAdapter.generateFullName());
    System.out.println(personAdapter.generateFullAddress());
  }
}
```

Person.java

```java
package com.sliit;

public interface Person {
  String generateFullName();
  String generateFullAddress();
}
```

PersonImpl.java

```java
package com.sliit.impl;

import com.sliit.Person;
```

```java
public class PersonImpl implements Person {

  private static String FULL_NAME    = "Pradeep Sanjaya";
  private static String FULL_ADDRESS = "Pothuarawa Road, Malabe";

  @Override
  public String generateFullName() {
    return FULL_NAME;
  }

  @Override
  public String generateFullAddress() {
    return FULL_ADDRESS;
  }
}
```

RemotePerson.java

```java
package com.sliit;

public interface RemotePerson {
  String getFirstName();
  String getLastName();
  String getAddressLine1();
  String getAddressLine2();
}
```

RemotePersonImpl.java

```java
package com.sliit.impl;

import com.sliit.RemotePerson;

public class RemotePersonImpl implements RemotePerson {

  private static String FIRST_NAME = "Pradeep";
  private static String LAST_NAME  = "Sanjaya";
  private static String ADDRESS1   = "Pothuarawa Road";
  private static String ADDRESS2   = "Malabe";

  @Override
  public String getFirstName() {
    return FIRST_NAME;
  }

  @Override
  public String getLastName() {
    return LAST_NAME;
  }
```

```java
    @Override
    public String getAddressLine1() {
        return ADDRESS1;
    }

    @Override
    public String getAddressLine2() {
        return ADDRESS2;
    }
}
```

PersonAdapter.java

```java
package com.sliit;

public class PersonAdapter implements Person {

    private static String SEPERATOR = " ";

    RemotePerson remotePerson;

    public PersonAdapter(RemotePerson remotePerson) {
        this.remotePerson = remotePerson;
    }

    @Override
    public String generateFullName() {
        StringBuilder stringBuilder = new StringBuilder();
        stringBuilder.append(remotePerson.getFirstName());
        stringBuilder.append(SEPERATOR);
        stringBuilder.append(remotePerson.getLastName());
        return stringBuilder.toString();
    }

    @Override
    public String generateFullAddress() {
        StringBuilder stringBuilder = new StringBuilder();
        stringBuilder.append(remotePerson.getAddressLine1());
        stringBuilder.append(SEPERATOR);
        stringBuilder.append(remotePerson.getAddressLine2());
        return stringBuilder.toString();
    }
}
```
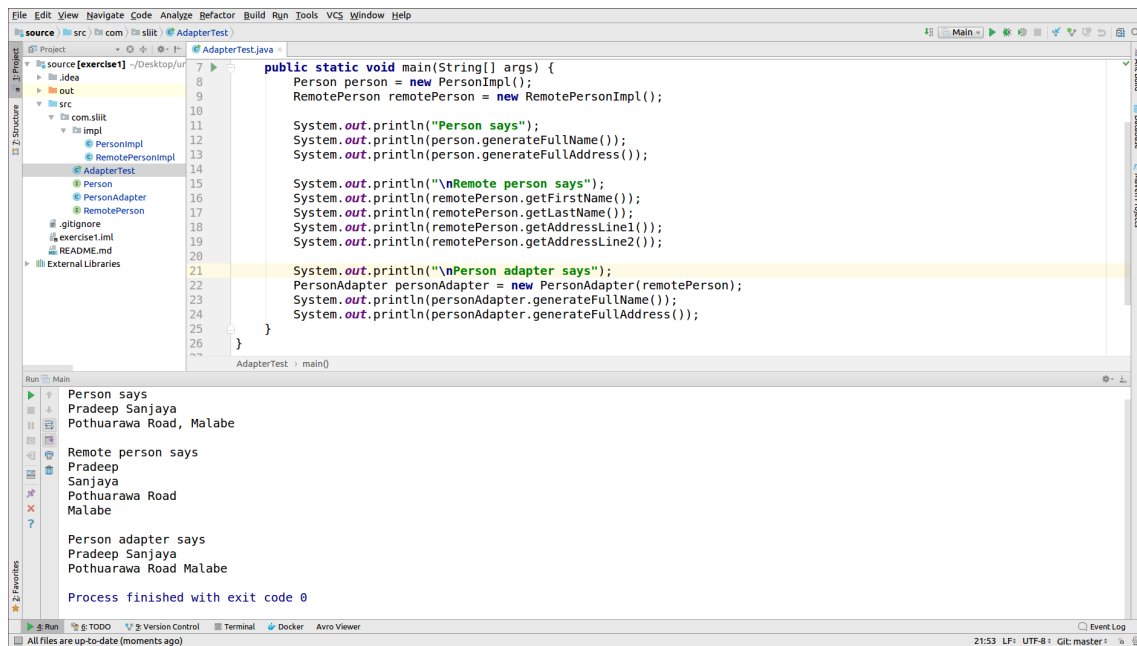
Screenshots

Figure 0.1: Solution

REFERENCES

[1] Samarathunge, U. (2020) Lecture - 03 GOF Design Patterns Part I

[2] Samarathunge, U. (2020) Lecture - 03 GOF Design Patterns Part II-v2

[3] Samarathunge, U. (2020) Lecture - 03 GOF Design Patterns Part II With Answers

[4] Samarathunge, U. (2020) Lecture - 03 GOF Design Patterns Part III