**Assignment 7 - SOLID Principles**

Identify which SOLID principle has been applied in the code snippets below.

Part 1

interface GestureHandler {

void click(Element element);

}

interface WebGestureHandler extends GestureHandler {}

interface MobileGestureHandler extends GestureHandler {

void doubleTap(Element element);

}

Answer- Single Responsibility Principle,Interface Segregation

Part 2

public class Message {

String text;

}

public class PriorityMessage extends Message {

private int priority;

}

public class MessageHandler {

public void handle(Message message) {

// Handle the message.

}

}

public class PriorityMessageQueue {

public void receive(PriorityMessage message) {

new MessageHandler().handle(message);

}

}

Answer- Single Responsibility Principle

Part 3

public class BankAccount {

private final String number;

public BankAccount(final String number) {

this.number = number;

}

}

public class SavingsBankAccount extends BankAccount {}

public class DepositBankAccount extends BankAccount {}

Answer-Open-Closed Principle

Part 4

public interface TaxCalculator {

void applyTaxes(Order order);

}

public class OrderProcessor {

private final TaxCalculator taxCalculator;

public OrderProcessor(final TaxCalculator taxCalculator) {

this.taxCalculator = taxCalculator;

}

}

Answer-Open-Closed Principle

Part 5

public class LedgerEntry {}

public class Ledger {

private Set<LedgerEntry> entries;

public void addEntry(final LedgerEntry entry) {

if (entry != null) {

if (entries == null) {

entries = new HashSet<>();

}

entries.add(entry);

}

}

public void getEntries() {

return entries == null ? null

: new HashSet<>(entries);

}

}

Answer-Liskov’s Substitution Rule