

To conduct Boundary Value Analysis (BVA) in Eclipse Oxygen IDE using JUnit for the provided requirements, here's a step-by-step guide based on the document content:

Step-by-Step Demonstration

1. Set up Eclipse Oxygen IDE:

- Open Eclipse Oxygen and create a new Java project (File > New > Java Project).
- Name your project (e.g., "BankingAppBVA").

2. Add JUnit Library:

- Right-click on your project > Properties.
- Navigate to Java Build Path > Libraries tab > Add Library... > select JUnit (choose JUnit 5 for this example) > Finish.

3. Create a New Java Class:

- Right-click on src > New > Class.
- Name the class (e.g., BankingApplicationTest).
- Ensure the public static void main(String[] args) box is unchecked.

4. Implement the Validation Logic:

```
import static org.junit.jupiter.api.Assertions.*;
```

```
import org.junit.jupiter.api.Test;
```

```
public class BankingApplicationTest {
```

```
    // Helper method to simulate validation (for demonstration)
```

```
    public boolean validateInput(String areaCode, String prefix, String suffix, String password, String command) {
```

```
        return (areaCode.matches("\\d{3}") || areaCode.isEmpty()) &&
```

```
            prefix.matches("\\d{3}") && Integer.parseInt(prefix) >= 200 && Integer.parseInt(prefix) <= 999 &&
```

```
            suffix.matches("\\d{4}") && Integer.parseInt(suffix) >= 1000 && Integer.parseInt(suffix) <= 9999 &&
```

```
            password.matches("\\w{6}") &&
```

```
            (command.equals("Check status") || command.equals("Deposit") || command.equals("Withdrawal"));
```

```
    }
```

```
    // Example Positive Test Cases
```

```
    @Test
```

```
public void testValidMinAreaCode() {  
    assertTrue(validateInput("000", "200", "1000", "abc123", "Check status"));  
}
```

@Test

```
public void testValidMaxAreaCode() {  
    assertTrue(validateInput("999", "999", "9999", "xyz456", "Deposit"));  
}
```

```
// Add remaining positive and negative test cases here following the format.
```

```
}
```