JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER
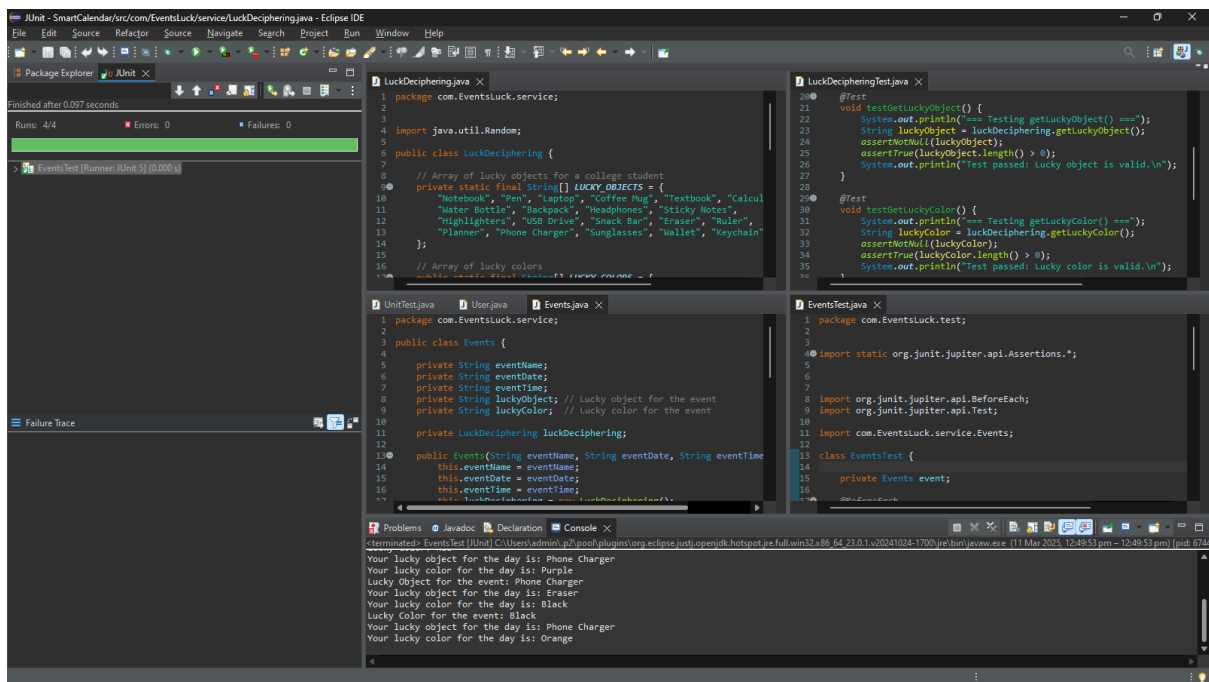

- ## LuckDeciphering.java

package com.EventsLuck.service;

import java.util.Random;

public class LuckDeciphering {

    // Array of lucky objects for a college student

    private static final String[] *LUCKY_OBJECTS* = {

        "Notebook", "Pen", "Laptop", "Coffee Mug", "Textbook", "Calculator",

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
    "Water Bottle", "Backpack", "Headphones", "Sticky Notes",

    "Highlighters", "USB Drive", "Snack Bar", "Eraser", "Ruler",

    "Planner", "Phone Charger", "Sunglasses", "Wallet", "Keychain"

};


// Array of lucky colors

public static final String[] LUCKY_COLORS = {

    "Red", "Blue", "Green", "Yellow", "Purple", "Orange", "Pink", "Black", "White", "Gold"

};


private Random random;


public LuckDeciphering() {

    this.random = new Random();

}


/**

 * Get the lucky object for the day.

 *

 * @return A randomly selected lucky object.

 */

public String getLuckyObject() {

    String luckyObject = LUCKY_OBJECTS[random.nextInt(LUCKY_OBJECTS.length)];

    System.out.println("Your lucky object for the day is: " + luckyObject); // Print statement

    return luckyObject;

}
```

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
/**
 * Get the lucky color for the day.
 *
 * @return A randomly selected lucky color.
 */
public String getLuckyColor() {

    String luckyColor = LUCKY_COLORS[random.nextInt(LUCKY_COLORS.length)];

    System.out.println("Your lucky color for the day is: " + luckyColor); // Print statement

    return luckyColor;

}


/**
 * Getter method for LUCKY_OBJECTS array.
 *
 * @return The array of lucky objects.
 */
public static String[] getLuckyObjects() {

    return LUCKY_OBJECTS;

}
}
```

• *LuckDecipheringTest.java*

```java
package com.EventsLuck.test;

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

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
import org.junit.jupiter.api.BeforeEach;

import org.junit.jupiter.api.Test;


import com.EventsLuck.service.LuckDeciphering;


public class LuckDecipheringTest {


    private LuckDeciphering luckDeciphering;


    @BeforeEach
    void setUp() {
        luckDeciphering = new LuckDeciphering();
    }


    @Test
    void testGetLuckyObject() {
        System.out.println("=== Testing getLuckyObject() ===");
        String luckyObject = luckDeciphering.getLuckyObject();
        assertNotNull(luckyObject);
        assertTrue(luckyObject.length() > 0);
        System.out.println("Test passed: Lucky object is valid.\n");
    }


    @Test
    void testGetLuckyColor() {
        System.out.println("=== Testing getLuckyColor() ===");
```

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
        String luckyColor = luckDeciphering.getLuckyColor();

        assertNotNull(luckyColor);

        assertTrue(luckyColor.length() > 0);

        System.out.println("Test passed: Lucky color is valid.\n");

    }


    @Test

    void testLuckyObjectInList() {

        System.out.println("=== Testing testLuckyObjectInList() ===");

        String luckyObject = luckDeciphering.getLuckyObject();

        String[] luckyObjects = LuckDeciphering.getLuckyObjects();

        assertTrue(luckyObjects.length > 0);

        assertTrue(java.util.Arrays.asList(luckyObjects).contains(luckyObject));

        System.out.println("Test passed: Lucky object is in the list.\n");

    }


    @Test

    void testLuckyColorInList() {

        System.out.println("=== Testing testLuckyColorInList() ===");

        String luckyColor = luckDeciphering.getLuckyColor();

        assertTrue(LuckDeciphering.LUCKY_COLORS.length > 0);

assertTrue(java.util.Arrays.asList(LuckDeciphering.LUCKY_COLORS).contains(luckyColor));

        System.out.println("Test passed: Lucky color is in the list.\n");

    }
}
```

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

- ## *Events.java*

```java
package com.EventsLuck.service;


public class Events {


    private String eventName;

    private String eventDate;

    private String eventTime;

    private String luckyObject; // Lucky object for the event

    private String luckyColor;  // Lucky color for the event


    private LuckDeciphering luckDeciphering;


    public Events(String eventName, String eventDate, String eventTime) {

        this.eventName = eventName;

        this.eventDate = eventDate;

        this.eventTime = eventTime;

        this.luckDeciphering = new LuckDeciphering();

        this.luckyObject = luckDeciphering.getLuckyObject(); // Assign a lucky object

        this.luckyColor = luckDeciphering.getLuckyColor();   // Assign a lucky color

    }


    // Getters for event details

    public String getEventName() {
```

```java
        return eventName;

    }


    public String getEventDate() {

        return eventDate;

    }


    public String getEventTime() {

        return eventTime;

    }


    // Getters for lucky object and color
    public String getLuckyObject() {

        return luckyObject;

    }


    public String getLuckyColor() {

        return luckyColor;

    }


    @Override
    public String toString() {

        return "Event: " + eventName +

            "\nDate: " + eventDate +

            "\nTime: " + eventTime +

            "\nLucky Object: " + luckyObject +
```

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
            "\nLucky Color: " + luckyColor;

    }

}
```

- ## *Eventstest.java*

```java
package com.EventsLuck.test;

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

import org.junit.jupiter.api.BeforeEach;

import org.junit.jupiter.api.Test;


import com.EventsLuck.service.Events;


class EventsTest {

    private Events event;


    @BeforeEach
    void setUp() {
        // Create a new event with a name, date, and time
        event = new Events("Study Session", "2023-10-15", "10:00 AM");
    }


    @Test
    void testEventCreation() {
```

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
    // Test if the event is created with the correct details

    assertNotNull(event);

    assertEquals("Study Session", event.getEventName());

    assertEquals("2023-10-15", event.getEventDate());

    assertEquals("10:00 AM", event.getEventTime());

}


@Test

void testLuckyObjectAssignment() {

    // Test if a lucky object is assigned to the event

    String luckyObject = event.getLuckyObject();

    assertNotNull(luckyObject);

    assertTrue(luckyObject.length() > 0);

    System.out.println("Lucky Object for the event: " + luckyObject);

}


@Test

void testLuckyColorAssignment() {

    // Test if a lucky color is assigned to the event

    String luckyColor = event.getLuckyColor();

    assertNotNull(luckyColor);

    assertTrue(luckyColor.length() > 0);

    System.out.println("Lucky Color for the event: " + luckyColor);

}


@Test
```

JUNIT INTEGRATION TESTING FOR SMART CALENDAR FOR CLASSES EVENTS AND LUCK DECIPHER

```java
void testToString() {

    // Test the toString method to ensure it includes event details and lucky attributes

    String eventString = event.toString();

    assertTrue(eventString.contains("Study Session"));

    assertTrue(eventString.contains("2023-10-15"));

    assertTrue(eventString.contains("10:00 AM"));

    assertTrue(eventString.contains("Lucky Object"));

    assertTrue(eventString.contains("Lucky Color"));

    System.out.println("Event Details:\n" + eventString);

    }

}
```