Test Plan Document for Assignmetnt #3: StringUtils Class

1. Introduction

- **Purpose:** This document outlines the test strategy and comprehensive plan for unit testing the **StringUtils** class, which provides methods for string manipulation. The purpose of testing is to ensure that all methods function correctly across a variety of inputs.

2. Scope

- This test plan covers the following methods within the **StringUtils** class:
  - **concatenate(String str1, String str2)**
  - **reverse(String str)**
  - **toUpperCase(String str)**
  - **trim(String str)**

3. Objectives

- Verify that each method handles typical, boundary, and erroneous input conditions correctly.
- Ensure that the methods perform as expected under normal and edge cases.

4. Resources

- **Hardware:** Standard development computers.
- **Software:** Java Development Kit, Eclipse, JUnit 4.13.2 for unit testing.
- **Human Resources:** The tests will be designed and executed by each group member.

5. Test Strategy

- **Methodology:** Parameterized tests with JUnit to handle multiple inputs efficiently.
- **Types of Testing:**
  - **Unit Testing:** Each method will be tested in isolation.

6. Test Deliverables

- Test Plan (this document)
- Test Cases
- Test Results

7. Schedule

- **Test Preparation:** 1 day for setting up and writing test cases.
- **Test Execution:** 1 day.
- **Test Review and Closure:** 1 day.