Design Document and Test Plan

Name of team members who collaborated on the design and test plan:

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Name of programming challenge for which you submit this document: Bike-to-Campus Reward Points

# Pseudocode

*(See Ch. 1.6 in our textbook for an example of how to write detailed pseudocode)*

Cout a message asking user for a number of bike rides

Store that number in a variable int numOfRides

Check the numOfRides is not <0

If it is then let user know

Cout a message asking user to input another number

Cin the number and store in numOfRides

Use a switch statement based on numOfRides

For numOfRides = 0

Cout the message “You earned 0 points this semester”

For numOfRides = 1

Cout the message “You earned 3 points this semester”

For numOfRides = 2

Cout the message “You earned 10 points this semester”

For numOfRides = 3

Cout the message “You earned 15 points this semester”

For numOfRides = 4

Cout the message “You earned 30 points this semester”

For anything else

Cout the message “You earned 50 points this semester”

# Test Plan

*(See Ch. 5.13 in our textbook for an example of how to write a test plan)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Test #** | **Purpose** | **Input** | **Expected Output** |
| 1 | Check input validation | A | Ask user to input a valid number |
| 2 | Check if output is right | 0 | 0 |
| 3 | Check if output is right | 1 | 3 |
| 4 | Check if output is right | 2 | 1- |
| 5 | Check if output is right | 6 | 50 |
| … | *(Feel free to add more test cases)* |  |  |