Program Design Document Spring, 2017

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CS155 – Section 01

Project #7 – Stuck in the Mud

Due: Tuesday April 18th, 2017

**Program Requirements:**

This program will play a game of dice, removing dice from the pool if they roll either a 2 or 5. The dice that are rolled will be summed up if they are not 2 or 5.

**Program Inputs:**

None

**Program Outputs:**

A table consisting of the dice rolls and whether the dice has been “Stuck” as well as the cumulative sum after each round of rolling. At the end the total sum will be displayed.

**Solution Overview:**

The program will loop through an array and assign each index a random number between 1 and 6. If an index is assigned a 2 or 5 the index will be set to -1 and will be skipped on future assignments. A sum will be calculated each round taking all the index’s that were not assigned 2 or 5 or that have a -1 and adding them to the sum. After all indexes in the array are set to -1 the program will display the total sum and end.

**Algorithm Flowchart:**



**Test Plan:**

The program will be run multiple times to ensure that the program does not generate random numbers above 6 or below 1 as well as make sure that the sum is calculated properly.