**Development Log for Software Design: "Title of project”**

**Project Title:** Student Management System  
**Date Started:** January 1, 2025  
**Development Period:** X Weeks.

**Author:** Name Here.

**1. Structure Chart**

A structure chart is created to visually represent the different modules in the system. Below is a simple structure chart of the system.

Insert Structure Chart Here

**2. Program Design (Pseudocode/Flowcharts)**

**Pseudocode Example for "Function or block as appropriate"**

**Version x.x.**

**3. Function Description**

Each function in the system is described below:

* **Example Function, version x.x**
  + **Description:** The function does….
  + **Input Parameters**: List acceptable data types and ranges here and order.
  + **Returns:** What the output returns, and where applicable, what it means.

**4. Evidence of Unit Testing**

**Unit Testing Function Name Version X.X:**

* **Test Case 1:**
  + **Input:** data types and numbers
  + **Expected Output:** 80.0
  + **Result:** Passed
* **Test Case n:** (repeat as needed)

**Unit Test Results Summary:**

* General description, any issues remaining?
* Edge cases, such as X, were tested (not) successfully.
* List any things needing resolving in future versions

**5. Evidence of Integration Testing**

**Integration Test:**

* **Blocks/Functions tested together: Function name1 x.x and function name2 x.x**
  + **Test Steps:**
    1. List these here
  + **Expected Outcome:**
    1. Program should X.
    2. Functions should Y.
  + **Result:** Passed

**Integration Test Results Summary:**

* The system correctly integrates Function name1 x.x and Function name2 x.x.
* The following still needs to be resolved/implemented….

**5. Evidence of Scenario Testing**

**Software/project version X.x**

**Testing scenario: Tests a series of events to test larger functionality – describe here**

Steps:

* + 1. Input thing
    2. Validate input (successful).
    3. Receive next input
    4. Do something else here

4.1 multiple variations can be tested here

4.1.1 event – Passed

4.1.2 event – Passed

4.2 event - Failed.

**6. Evidence of Version Control**

The project was managed using **Git** for version control. Below are the key Git commands used in the development process:

1. **Initial Commit:**

bash

Copy code

git init

etc

1. **Bug Fixes:**

bash

Copy code

git checkout -b fix-input-validation-bug

**GitHub Repository:**

* [GitHub Repository Link](https://github.com/username/student-management-system)

**7. Full Code (in Zip File) uploaded externally to Blackboard on 01/06/25**

* Student\_submission\_name.zip

**Note:** The zip file contains:

* Source Code (.c files)
* Unit Test Scripts (.py for Python unit tests)
* Integration Test Logs (test\_logs.txt)

**8. References**

1. **C Programming Language or specific instance such as….:**
   * Kernighan, B.W., & Ritchie, D.M. (1988). *The C Programming Language* (2nd ed.). Prentice Hall.
2. **Git Documentation:**
   * Chacon, S., & Straub, B. (2014). *Pro Git*. Apress.
   * [Git Documentation](https://git-scm.com/doc)
3. **Software Testing:**
   * Kaner, C., Falk, J., & Nguyen, H. (1999). *Testing Computer Software* (2nd ed.). Wiley.