

## **Student Management System – Pseudocode**

### **MODULE 1: Student Class**

CLASS Student

PRIVATE:

rollNumber

name

course

marks

PUBLIC:

FUNCTION setData()

INPUT rollNumber, name, course, marks

END FUNCTION

FUNCTION displayData()

PRINT rollNumber, name, course, marks

END FUNCTION

FUNCTION getRollNumber()

RETURN rollNumber

END FUNCTION

FUNCTION updateData()

INPUT new name, course, marks

END FUNCTION

END CLASS

### **MODULE 2: File Handling**

FUNCTION loadFromFile(studentArray, count)

OPEN file in read mode

WHILE file has data

READ student data into array

INCREMENT count

END WHILE

CLOSE file

END FUNCTION

FUNCTION saveToFile(studentArray, count)

OPEN file in write mode

FOR each student

WRITE student data to file

END FOR

CLOSE file

END FUNCTION

### **MODULE 3: Menu Operations**

FUNCTION showMenu()

DISPLAY menu options

END FUNCTION

FUNCTION addStudent()

CALL setData()

INCREMENT count

END FUNCTION

FUNCTION displayStudents()

```
    FOR each student
        CALL displayData()
    END FOR
END FUNCTION
```

```
FUNCTION searchStudent(roll)
    FOR each student
        IF roll matches
            DISPLAY student
        END IF
    END FOR
END FUNCTION
```

```
FUNCTION updateStudent(roll)
    SEARCH student by roll
    UPDATE student details
END FUNCTION
```

```
FUNCTION deleteStudent(roll)
    SEARCH student by roll
    SHIFT remaining records
    DECREMENT count
END FUNCTION
```

### **Main Program Flow**

```
START
    LOAD data from file
    REPEAT
        SHOW menu
        PERFORM selected operation
    UNTIL user exits
    SAVE data to file
END
```