

BITS Pilani, K K Birla Goa Campus

Course Code: CSF 111 Course Name: Computer Programming

Lab 10: Structures and ADT

This exercise deals with managing Student records. You will be given the following programs:

1. A driver program (**student_comp.c**) that does operations on an array of Students.
2. A header file (**student_func1.h**) with declarations of operations that you have to implement.

Go through the main program and the header file to create the following:

1. A file **student.h** where you have to create a structure named student and typedef the structure as per the main program given.

The student structure should contain the following fields:

- i. name - string
 - ii. student_id - string
 - iii. college_email - string
 - iv. personal_email - string
 - v. hostel_number – string
2. A file **student_operations.c** which should contain the definitions of the functions that have been declared in the header file.
You have to implement the following functions:
 - i. scanf_students : This function must accept inputs from the user and populate the student array. The function declaration is present in the header file. This function returns the number of students that were input in the array.
 - ii. printf_students : This function must print all the student records that are present in the array. This function accepts only the student array but not the number of students. (Hint: Use global variables.) However, the function returns the number of student records that have been printed.
 3. A makefile that will contain the correct make instructions for successful compilation of the code and appropriate error messages if a make step fails.