

HW# 7
Due: September 10, 2021

Directions: Submit print out of your code and screenshots of your tests.

Note: Late homework will not be accepted. Plagiarism will not be tolerated.

1) Write the output of the following program:

```
#include <stdio.h>
#include <string.h>

int main()
{
    char s1[80] = "A Journey of a Little Guy";
    char s2[80] = "Thousand Miles";
    char s3[80] = "Must begin now!";
    char s4[80] = "with a Single Step.";
    char s5[80];
    char s6[80] = "";
    strcpy(s5, "");
    strncpy(s5, s1, 15);
    strcat(s5, s2);
    strcat(s5, " ");
    strncat(s6, s3, 11);
    strcat(s6, s4);
    strcat(s5, s6);
    printf("%s", s5);

    return 0;
}
```

2) Write a structure called **PlaneTicket** that has 3 members: a character array **Name** of length 100, a character array **Destination** of length 100, a float **TicketPrice**. Declare 2 variables of structure type **PlaneTicket** and initialize them with the following data:

- 1) Name: Monir, Destination: Bombay, Ticket Price: 22000.25
- 2) Name: Sharmin, Destination: Bangkok, Ticket Price: 12500.75

3) Suppose you are hired by a software company to create a student registry of 100 students.

a) Write a structure called **Student** that has 4 members: an integer **StudentID**, a character array **Name** of length 50, a float **CGPA** and a character array **Major** of length 20.

b) Write a function called **HighestGPA** that takes an array of structures as an input parameter. The function then prints the information of the student(s) with highest CGPA.

4) Write a C program that takes a string input from the user and replaces all the vowels in that string with '#'.

Sample input/output:

Please enter string: CSE115 is difficult.

Modified String: #S#115 #s d#ff#c#lt.