



Department of Statistics & Computer Science, University of Kelaniya

ACADEMIC YEAR – 2022/2023

BECS 11223 – Fundamentals of Programming

Lab Session 05

Throughout this lab session, you will learn about formatted input and output in C programming.

1. Write a C program that accepts a distance in inches from the user and prints the corresponding value in cms.
Note that 1 inch = 2.54 cm.

Test data and expected output:

```
Enter the distance in inches:3
Distance 3.00 inches is = 7.62 cms
```

Upload your completed C program into the Lab 05 – Program 01 submission folder.

2. Write a C program that reads two values from the user, then swaps their values and prints out the result.

Test data and expected output:

```
Enter two real values to be swapped:2.4 5.7
Values entered are a=2.400000 and b=5.700000
Values after swap are a=5.700000 and b=2.400000
```

Upload your completed C program into the Lab 05 – Program 02 submission folder.

3. Write a C program that read a temperature in Fahrenheit and prints the corresponding temperature in Celsius.

$$C = ((F - 32) * 5) / 9$$

Test data and expected output:

```
Enter temp in Farenheit:98.4
Temp 98.40 in Farenheit = 36.89 Centigrade
```

Upload your completed C program into the Lab 05 – Program 03 submission folder.

4. Write a program that accepts (read) any character and prints the corresponding ASCII value.

Test data and expected output:

```
Enter character: A
ASCII value of A is: 65
```

Upload your completed C program into the Lab 05 – Program 04 submission folder.

5. Write a C program to determine an employee weekly salary based on the following information.
- Read the employee regular hourly pay rate from user.
 - Read the employee hours worked from the user.
 - Calculate the total weekly pay for the employee. (No overtime pay for this example.)
 - Then, display the results in the following example:

Test data and expected output:

```
Enter hourly pay rate:200
Enter hours worked: 50
***** Weekly Salary *****
Hourly Rate:          200.00
Hours Worked:         50.00
Weekly Salary:        10000.00
```

Upload your completed C program into the Lab 05 – Program 05 submission folder.

6. Write a C program to implement a simple receipt generator. This shop sells only two products and calculate the total bill amount based on the quantity purchased by the user and display receipt according the following guidelines.
- Unit price for the Laptop is 120,000.00 and Mobile Phone is 55,000.00.
 - Read number of laptops purchased by the customer.
 - Read number of phones purchased by the customer.
 - Then, calculate the total amount for the receipt and display it in the following format:

```
Enter Number of Laptop Purchased:2
Enter Number of Phones Purchased: 10
***** Welcome UoK Digital Store *****
Description      No of Units    Unit Price      Sub Total
Laptop           2          120000.00      240000.00
Phone            10          55000.00       550000.00
Total Amount                                790000.00
-----
```

Upload your completed C program into the Lab 05 – Program 06 submission folder.