

**BASIC COMPUTER PROGRAMMING**

**DEE 4113**

**LAB MODULE 3**

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**SEMESTER: Year 1 Semester 1**



**FACULTY OF ENGINEERING**

**EXPERIMENT 3 (C3, PLO2):**

**SELECTION STRUCTURES IN C PROGRAMMING**

* 1. **Objectives**

1. To construct *if…else* selection statement in the C programming.

**2.0 Equipment List**

Personal Computer with Microsoft Visual C++

1. **Procedure**
2. Consider the program in Listing 1. The program asks the user to enter two numbers. Determine what is printed next if the user enters the following numbers:
3. first number = 9, second number = 4
4. first number = -6, second number = 2
5. first number = -5, second number = -4

#include <stdio.h>

#include <stdlib.h>

int main ( )

{

int first,second,answer;

printf ("enter first number:");

scanf("%d", &first);

printf ("enter second number:");

scanf("%d", &second);

answer = first - second;

if (answer>=0)

{

printf ("\n Answer is a positive number\n");

}

else

{

printf ("\n Answer is a negative number\n");

}

printf ("Thank you.\n");

return 0;

}

Listing 1

1. By using an *if…else* statement, design a C program that asks the user to input integer number. After the user has input the number, the program will display whether the number is greater or equal. Determine what is printed next if the user enter the numbers as below :
2. first number = 13, second number = 8
3. first number = 8, second number = 13
4. first number = 8, second number = 8

**4.0 Results**

**4.1 Procedure 1:**

1. first number = 9, second number = 4

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1. first number = -6, second number = 2

A screenshot of a computer program

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1. first number = -5, second number = -4

**A computer screen shot of a program

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**4.2 Procedure 2:**

|  |
| --- |
| #include <stdio.h>  int main() {  int first\_number, second\_number;  // Ask the user to input the first integer  printf("Please enter the first integer: ");  scanf\_s("%d", &first\_number);  // Ask the user to input the second integer  printf("Please enter the second integer: ");  scanf\_s("%d", &second\_number);  // Compare the two numbers and display the result  if (first\_number > second\_number) {  printf("The first number (%d) is greater than the second number (%d).\n", first\_number, second\_number);  }  else if (first\_number < second\_number) {  printf("The first number (%d) is less than the second number (%d).\n", first\_number, second\_number);  }  else {  printf("The first number (%d) is equal to the second number (%d).\n", first\_number, second\_number);  }  return 0;  } |

1. first number = 13, second number = 8

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1. first number = 8, second number = 13

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1. first number = 8, second number = 8

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**5.0 Conclusion**

Both programs are getting two input numbers. For the first program, it processes first and second input by this answer = first – second and use the if-else statement to check whether it is positive or negative. For the second program, it gets the two inputs to check the first one greater, lesser or equal to the second input.