C Programming
&
Web Page Design

Lab Manual designed by

Sisira Kumar Kapat,
Lecturer (Comp. Appl.), UGMIT, Rayagada.
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This document presents the experiments which are needed to the students of Diploma, 3rd Semester, E&TC. The students can be able to learn the C Programming using Turbo C editor; also they will be designing the various web pages using HTML programming. This manual is in accordance with SCTE&VT syllabus.

C programming & Web Page Design Lab

Expt. No. **1** **Date:**

Aim of the experiment: To display our college name twenty times on the screen.

Apparatus required: Computer system with turbo C editor

Theory:

Printf statement is used in the program as output statement, and scanf statement is used as the input statement in C Programming.

Program:

```
#include<stdio.h>
void main()
{
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
      printf("UGMIT\n");
}
```

Output:

UGMIT
UGMIT
UGMIT
UGMIT.... 20 times.

Conclusion: I have successfully displayed the college name 20 times on the screen using loop.

Signature of the student

Expt. No. 2 **Date:**

Aim of the experiment:

i. To understand the Looping Concept. (While, do-while, for loop) of C Programming.
ii. Write “Hello World”, 20 times on the screen using loop.

Apparatus required: Computer system with turbo C editor

Theory:

We can write the program in two ways, such as, normal approach or by using Loop.

Normal approach:

- In normal approach we can write the printf statement 20 times to execute the sentence “Hello World”.
- This is a time consuming process.
- Creates a mesh if the same statement is repeated multiple times.
- Increases the lines of code of the program.

Using Loop:

- Loop can be used to execute the same statement as many times as our wish.
- Though the number of repetition increases, the lines of code of the program remain same.
- Hence we shall use loops to perform this experiment.

Loops in C : There are three types of loops available in C such as,

1. While
2. Do-while
3. For

while loop

The syntax for while loop is,

```
while(condition)
{
        statements;
}
```

do-while loop

The syntax for while loop is,

```
do
{
        statements;
}while(condition);
```

for loop

The syntax for while loop is,

```
for(initialization; condition; termination)
{
        statements;
}
```

Program:

Using while loop

```
// Write "Hello World", 20 times on the screen using while loop.

      #include<stdio.h>
      void main()
      {
            int i=1;
            while(i<21)
            {
                  printf("hello world\t");
                  i++;
            }
      }
```

Using do-while loop

```
// Write "Hello World", 20 times on the screen using do-while loop.

      #include<stdio.h>
      void main()
      {
            int i=1;
            do
            {
                  printf("hello world\t");
                  i++;
            } while(i<21);
      }
```

Using for loop

```
// Write "Hello World", 20 times on the screen using for loop.

      #include<stdio.h>
      void main()
      {
            int i;
            for(i=1;i<=100;i++)
            {
                  printf("hello world\t");
            }
      }
```

Output:

```
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
Hello World      Hello World
```

Conclusion: I understood the concept of looping in C; and successfully displayed "Hello World", 20 times on the screen.

Signature of the student

Expt. No. **3** **Date:**

Aim of the experiment: To display all even numbers from 1-100.

Apparatus required: Computer system with turbo C editor

Theory:

- We should find the even numbers from 1 to 100, and display it.
- We have 50 even numbers between 1 to 100.
- The logic to test whether a number is even or odd is same for each number. Hence this will be repeated for 1 to 100.
- Since there is repetition, we will use the concept of loop here.

Program:

Using while loop

```
#include<stdio.h>
void main()
{
      int i=1;
      while(i<=100)
      {
            if(i%2==0)
                  printf("%d\t",i);
            i++;
      }
}
```

Using do-while loop

```
#include<stdio.h>
void main()
{
      int i=1;
      do
      {
            if(i%2==0)
                  printf("%d\t",i);
            i++;
      }while(i<=100);
}
```

Using for loop

```
#include<stdio.h>
void main()
{
      int i;
      for(i=1;i<=100;i++)
      {
            if(i%2==0)
                  printf("%d\t",i);
      }
}
```

Output:

```
2     4     6     8     10    12... 98    100
```

Conclusion: I have successfully displayed 1 to 100, numbers on the screen using loop.

Signature of the student

Expt. No. **4** **Date:**

Aim of the experiment: To perform addition of numbers from 1 to 100.

Apparatus required: Computer system with turbo C editor

Theory:

- We should find the sum of numbers from 1 to 100, and display it.
  `1 + 2 + 3 + 4 +...+ 99 + 100 = 5050`
- In LHS, the number is a continous series, so we can use loop concept of C to write the program.
- The number starts with 1 and ends at 100. Hence we can consider a variable 'i', initialize i=1, and condition will be, i<=100.
- The next number is one more than the previous number. So, i=i+1 or i++.
- Finally we should display the sum.

Program:

Using while loop

```
#include<stdio.h>
void main()
{
      int i=1, sum=0;
      while(i<=100)
      {
            sum=sum+i;
            i++;
            printf("%d+",i)
      }
      printf("\b=%d",sum);
}
```

Using do-while loop

```
#include<stdio.h>
void main()
{
      int i=1, sum=0;
      do
      {
            sum=sum+i;
            i++;
            printf("%d+",i)
      }while(i<=100);
      printf("\b=%d",sum);
}
```

Using for loop

```
#include<stdio.h>
void main()
{
      int i, sum=0;
      for(i=1;i<=100;i++)
      {
            sum=sum+i;
            printf("%d+",i)
      }
      printf("\b=%d",sum);
}
```

Output:

```
1 + 2 + 3 + 4 +...+ 99 + 100 = 5050
```

Conclusion: I have successfully calculated the sum of numbers from 1 to 100 using loop and displayed it on the screen.

Signature of the student

Expt. No. **5** **Date:**

Aim of the experiment: To find smallest number from array elements.

Apparatus required: Computer system with turbo C editor

Theory:

- An array is a sequential memory allocation of homogeneous data elements.
- To find the smallest number from an array of 'n' elements, we will apply the following logic.
    - Consider a variable smallest, with same data type as the array.
    - Assign the first element of the array to smallest.
      Smallest = array[0]
    - Compare 'smallest' with the elements of array from second element onwards.
      From i=1 to n, do the following
    - If (smallest > array[n]), then smallest=array[n].
    - Otherwise do nothing
    - Finally print the value of smallest.

Program:

Using for loop

```
#include<stdio.h>
#define n 5
void main()
{
      int arr[n],num,i,smallest;
      printf("How many numbers do you want in the array?");
      scanf("%d",&num);
      printf("Enter the elements of the array:");
      for(i=0,i<num;i++)
            scanf("%d",&arr[i]);
            smallest=arr[0];
      for(i=1;i<num;i++)
      {
            if(smallest>arr[i])
                  smallest=arr[i];
      }

      printf("The smallest number is=%d",smallest);
}
```

Output:

```
How many numbers do you want in the array?
5
Enter the elements of the array:
23
53
26
45
65
The smallest number is= 23
```

Conclusion: I have successfully executed the C program and found the smallest number from an array.

Signature of the student

Expt. No. **6** **Date:**

Aim of the experiment: To find largest number from array elements.

Apparatus required: Computer system with turbo C editor

Theory:

- An array is a sequential memory allocation of homogeneous data elements.
- To find the largest number from an array of 'n' elements, we will apply the following logic.
    - Consider a variable largest, with same data type as the array.
    - Assign the first element of the array to smallest.
      largest = array[0]
    - Compare 'largest' with the elements of array from second element onwards.
      From i=1 to n, do the following
    - If (largest < array[n]), then largest=array[n].
    - Otherwise do nothing
    - Finally print the value of smallest.

Program:

Using for loop

```
#include<stdio.h>
#define n 5
void main()
{
      int arr[n],num,i,largest;
      printf("How many numbers do you want in the array?");
      scanf("%d",&num);
      printf("Enter the elements of the array:");
      for(i=0,i<num;i++)
            scanf("%d",&arr[i]);
            largest=arr[0];
      for(i=1;i<num;i++)
      {
            if(largest<arr[i])
                  largest=arr[i];
      }

      printf("The largest number is=%d",largest);
}
```

Output:

```
How many numbers do you want in the array?
5
Enter the elements of the array:
23
53
26
45
65
The largest number is= 65
```

Conclusion: I have successfully executed the C program and found the smallest number from an array.

Signature of the student

Expt. No. 7 **Date:**

Aim of the experiment: To sort array elements in ascending order.

Apparatus required: Computer system with turbo C editor

Theory:

- An array is a sequential memory allocation of homogeneous data elements.
- To sort the elements of an array of 'n' elements in ascending order, we will apply the following logic.
  - Enter the elements of the array.
  - Compare one element of the array with its subsequent elements and keep the smallest number in the beginning of the array.
  - Repeat this process till the end of the array.

Program:

Using for loop

```
#include<stdio.h>
#define n 5
void main()
{
      int arr[n],num,i,j,temp;
      printf("How many numbers do you want in the array?");
      scanf("%d",&num);
      printf("Enter the elements of the array:");
      for(i=0,i<num;i++)
            scanf("%d",&arr[i]);
      for(i=0;i<num;i++)
      {
            for(j=i+1;j<num;j++)
            {
                  if(arr[i]>arr[j])
                  {
                        temp=arr[i];
                        arr[i]=arr[j];
                        arr[j]=temp;
                  }
            }
      }
      printf("The sorted sequence is = \n");
      for(i=0;i<num;i++)
            printf("%d\t",arr[i]);

}
```

Output:

```
How many numbers do you want in the array?
5
Enter the elements of the array:
23
53
26
45
65
The sorted sequence is:
23 26 45 53 65
```

Conclusion: I have successfully executed the C program and sorted the array with 5 elements in ascending order.

Signature of the student

Expt. No. 8 **Date:**

Aim of the experiment: To sort array elements in descending order.

Apparatus required: Computer system with turbo C editor

Theory:

- An array is a sequential memory allocation of homogeneous data elements.
- To sort the elements of an array of 'n' elements in descending order, we will apply the following logic.
    - Enter the elements of the array.
    - Compare one element of the array with its subsequent elements and keep the largest number in the beginning of the array.
    - Repeat this process till the end of the array.

Program:

Using for loop

```
#include<stdio.h>
#define n 5
void main()
{
      int arr[n],num,i,j,temp;
      printf("How many numbers do you want in the array?");
      scanf("%d",&num);
      printf("Enter the elements of the array:");
      for(i=0,i<num;i++)
            scanf("%d",&arr[i]);
      for(i=0;i<num;i++)
      {
            for(j=i+1;j<num;j++)
            {
                  if(arr[i]<arr[j])
                  {
                        temp=arr[i];
                        arr[i]=arr[j];
                        arr[j]=temp;
                  }
            }
      }
      printf("The sorted sequence is = \n");
      for(i=0;i<num;i++)
            printf("%d\t",arr[i]);

}
```

Output:

```
How many numbers do you want in the array?
5
Enter the elements of the array:
23
53
26
45
65
The sorted sequence is:
65 53 45 26 23
```

Conclusion: I have successfully executed the C program and sorted the array with 5 elements in ascending order.

Signature of the student

Expt. No. **9** **Date:**

Aim of the experiment: To enter the elements of a 3x3 matrix and display it.

Apparatus required: Computer system with turbo C editor

Theory:

- An array is a sequential memory allocation of homogeneous data elements.
- Here we need a 2-D array, where one variable refers to the row and another variable refers to the column of the 2-D array.

Program:

```
/*
program to enter the elements of a 3x3 matrix and display
it.
*/
#include<stdio.h>
void main()
{
      int arr[3][3],i,j;
      //enter the elements into the matrix through Keyboard
      printf("Enter the elements of the array:");
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
                  scanf("%d",&arr[i][j]);
      //display the matrix
      printf("Your matrix is:\n");
      for(i=0;i<3;i++)
      {
            for(j=0;j<3;j++)
            {
                  printf("%d\t",arr[i][j]);
            }
            printf("\n");
      }
}
```

Output:

```
Enter the elements of the array:
1 2 3 4 5 6 7 8 9
Your matrix is:
1     2     3
4     5     6
7     8     9
```

Conclusion: I have entered the elements of a 3x3 matrix and displayed it. The program is successfully executed.

Signature of the student

Expt. No. **10** **Date:**

Aim of the experiment: To enter the elements of a matrix of user defined size and display it.

Apparatus required: Computer system with turbo C editor

Theory:

- An array is a sequential memory allocation of homogeneous data elements.
- Here we need a 2-D array, where one variable refers to the row and another variable refers to the column of the 2-D array.
- In this program we don't know the number of rows and columns. The user will enter the number of row and column at run time. An array can't be defined with a variable. So, in order to do that, we can add a macro line with a large number, the user can assign the number of row and column less than or equal to the number.

Program:

```
#include<stdio.h>
#define n 5
void main()
{
      int arr[n][n],p,q,num,i,j;
      //define the row and column
      printf("How many row do you want in your array?");
      scanf("%d",&p);
      printf("How many column do you want in your array?");
      scanf("%d",&q);
      //enter the elements into the matrix through Keyboard
      printf("Enter the elements of the array:");
      for(i=0,i<p;i++)
            for(j=0;j<q;j++)
                  scanf("%d",&arr[i][j]);
      //display the matrix
      printf("Your matrix is:");
      for(i=0;i<p;i++)
      {
            for(j=0;j<q;j++)
            {
                  printf("%d\t",arr[i][j]);
            }
            printf("\n");
      }
}
```

Output:

```
How many row do you want in your array? 2
How many column do you want in your array? 3
Enter the elements of the array:
1 2 3
4 5 6
Your matrix is:
1     2     3
4     5     6
```

Conclusion: I have successfully entered the elements of a matrix of user defined size and displayed it.

Signature of the student

Expt. No. 11 **Date:**

Aim of the experiment: To enter two 3x3 matrix and display their sum.

Apparatus required: Computer system with turbo C editor

Procedure:

- Three 2D array need to defined. Two of them are needed to enter two 3x3 input matrix, and another one array is needed to store the sum.
- The sum of the matrix is obtained by adding the elements of first and second matrix, which has occupied the same position.
  Example:
  sum[0][0]=matrix1[0][0]+matrix2[0][0]
  sum[0][1]=matrix1[0][1]+matrix2[0][1]

Program:

```
#include<stdio.h>
void main()
{
      int mat1[3][3],mat2[3][3],sum[3][3],i,j;
      //enter the elements into the matrix through Keyboard
      printf("Enter the elements of first matrix:");
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
                  scanf("%d",&mat1[i][j]);
      printf("Enter the elements of second matrix:");
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
            {
                  scanf("%d",&mat2[i][j]);
                  sum[i][j]=0;
            }
      //find the sum
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
                  sum[i][j]= mat1[i][j]+mat2[i][j];
      //display the sum
      printf("The sum is:\n");
      for(i=0;i<3;i++)
      {
            for(j=0;j<3;j++)
            {
                  printf("%d\t",sum[i][j]);
            }
            printf("\n");
      }
}
```

Output:

```
Enter the elements of first matrix:
1 2 3
4 1 6
2 1 3
Enter the elements of second matrix:
1 2 3
4 5 6
3 1 2
The sum is:
2     4     6
8     6     12
5     2     5
```

Conclusion: I have successfully completed the experiment of addition of two 3x3 matrix.

Signature of the student

Expt. No. **12** **Date:**

Aim of the experiment: To enter two 3x3 matrix and display their product.

Apparatus required: Computer system with turbo C editor

Theory:

- Three 2D array need to defined. Two of them are needed to enter two 3x3 input matrix, and another one array is needed to store the product.
- The product of the matrix is obtained by multiplying the elements of the row of first matrix with corresponding column of the second matrix.
  Example:
  mul[0][0]=mat1[0][0]*mat2[0][0]+mat1[0][1]*mat2[1][0]+mat1[0][2]*mat2[2][0]
  mul[0][1]=mat1[0][0]*mat2[0][1]+mat1[0][1]*mat2[1][1]+mat1[0][2]*mat2[2][1]
  mul[0][2]=mat1[0][0]*mat2[0][2]+mat1[0][1]*mat2[1][2]+mat1[0][2]*mat2[2][2]
  mul[1][0]=mat1[1][0]*mat2[0][0]+mat1[1][1]*mat2[1][0]+mat1[1][2]*mat2[2][0]

Procedure:

we can generalize these statements as,

```
mul[i][j]=0;
for(i=0;i<3;i++)
        for(j=0;j<3;j++)
                for(k=0;k<3;k++)
                        mul[i][j]=mul[i][j]+mat1[i][k]*mul[k][j];
```

Program:

```
#include<stdio.h>
void main()
{
      int mat1[3][3],mat2[3][3],mul[3][3],i,j,k;
      //enter the elements into the matrix through Keyboard
      printf("Enter the elements of first matrix:");
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
                  scanf("%d",&mat1[i][j]);
      printf("Enter the elements of second matrix:");
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
            {
                  scanf("%d",&mat2[i][j]);
                  mul[i][j]=0;
            }
      //find the product
      for(i=0,i<3;i++)
            for(j=0;j<3;j++)
                for(k=0;k<3;k++)
                   mul[i][j]= mul[i][j]+ mat1[i][k]+ mat2[k][j];
      //display the product
      printf("The product of two matrix is:\n");
      for(i=0;i<3;i++)
      {
            for(j=0;j<3;j++)
            {
                  printf("%d\t",mul[i][j]);
            }
            printf("\n");
      }
}
```

Output:

```
Enter the elements of first matrix:
1 0 0
0 1 0
0 0 1
Enter the elements of second matrix:
1 0 0
0 1 0
0 0 1
The product of two matrix is:
1 0 0
0 1 0
0 0 1
```

Conclusion: I have successfully completed the experiment of multiplication of two 3x3 matrix.

Signature of the student

Expt. No. 13 **Date:**

Aim of the experiment: To demonstrate output of standard library functions strlen (), strcpy (), strcat (), strcmp ().

Apparatus required: Computer system with turbo C editor

Theory:

- There are various library functions available in C.
- Here we study the string functions strlen (), strcpy (), strcat (), strcmp ().
- Strlen : this function displays the length of a given string.
- Strcpy : this function copy the string value of one variable into another variable.
- Strcat : this functions joins two given string and produce the output.
- Strcmp : this function compares two given string.

Procedure:

- To perform the experiment of string functions, we must include the headerfilestring.h into the program.

Program:

```
#include<stdio.h>
#include<string.h>
void main()
{
      char str1[5], str2[5], str3[10];
      int cmp;
      //enter the value of str1
      puts("Enter the value of string1:");
      gets(str1); //input the value of str1
      printf("the length of string 1=%d",strlen(str1));
      str2=strcpy(str1); //copy the value of str1 into str2
      puts(str2); //display the value of str2
      str3=strcat("String3=The value of string2 is",str2);
      puts(str3);
      cmp=strcmp(str3,str1);
      if(cmp>0)
            puts("string3 is larger than string1");
      else
            puts("string1 is larger than string3");
}
```

Output:

```
Enter the value of string1: UGMIT
the length of string 1= 5
UGMIT
String3=The value of string2 is UGMIT
string3 is larger than string1
```

Conclusion: I have successfully performed the experiment using some of the library functions of string.

Signature of the student

Expt. No. 14 Date:

Aim of the experiment: Browse through different search engine and search different topics..

Apparatus required:

- Computer system with any browser like Mozilla firefox, google chrome.
- Active internet connection.

Precautions: Use an updated web browser to protect from security breaches and browser vulnerabilities.

Theory:

Some Popular Browsers:

Different search engines have their unique user interface, features and underlying technology. Some popular search engines are given below.

Microsoft Edge: It is developed by Microsoft and was firstly released in 2015 for its proprietary operating system Windows 10. It is the successor of the internet explorer web browser of the Microsoft family. It is also integrated with Microsoft's online platform for providing voice control searching functionality and dynamic content related to search inside the address bar.

Google Chrome: It is the most widely used web browser developed by Google. It is Cross-platform web browser that was firstly released in 2008 for the Windows Operating System of Microsoft. This browser is now a proprietary free ware based on Google's free and open-source software (FOSS) project "Chromium". It is widely used due to speed & security capabilities.

Mozilla Firefox: originally written in general-purpose scripting language- PHP. It is a free and open source browser developed by Mozilla foundation and its subsidiary Mozilla Corporation. It was initially released in September 2002.

Opera: It is a multi platform browser developed by Opera software it was initial released in April 1995 it is also available for mobile devices and this mobile version are known as Opera Mini and Opera mobile.

Some Popular Search Engine Variants

Different search engines have their unique user interface, features and underlying technology. Some popular search engines are given below.

Google: It is the most trusted search engine worldwide. It was developed by larry page and Sergey brin in 1996 for their academic research project. It was initially known as BackRub. It is written in C, C++ and Python programming languages. It is being used as a default search engine for various web browsers e.g., Chrome, Safari and Mozilla Firefox, etc. Google is using emerging technologies like artificial intelligence (Al), machine learning (ML) to recognize user behaviour, likings and other contextual information and produce better results for its users.

Microsoft Bing: It is owned and being maintained by Microsoft. It is the successor of previous search engines of Microsoft e.g., MSN Search & Windows Live Search. It

was launched in June 2009 and written in ASP.NET. It provides a variety of search services like web, Image, video and map. Unlike google its home page provides various links to current news, weather and links to other information like "On this day in history"

Yahoo: This is the oldest search engine available to internet users. It is founded by Jerry Yang and David filo in January 1994 as "Jerry and David's guide to the World Wide Web". This search engine is owned by Yahoo and originally written in general-purpose scripting language- PHP.

Baidu: It is among the top performer in the market share of search engines worldwide. It is owned by Chinese company Baidu, Inc. which is one of the largest artificial intelligence and internet companies in the world. It was incorporated in January 2000 by Robin Li and Eric Xu. This search engine holds more than 72% of the Chinese search engine market as of June 2021. It offers various services like Maps, Image search, Video search, patent search, legal search, games, etc.

Yandex: It is a search engine prevalently used in Russia and was launched in September 1997. Itis owned by Yandex N.V., a Russian-Dutch domiciled multinational. Apart from image searching, video searching and web searching, it also provides other services like online text and website translator, maps, email, app analytics and marketing platform.

Duckduckgo: Last in our list of the search engine but not the least, Duckduckgo(ddg) is a favorite search engine for millions of users (mine too), especially who cares their privacy and want to keep their searching history anonymous. It is created by Gabriel Weinberg and owned by Duck Duck Go Inc. It was launched in September 2008 and its code is written in Perl, Java Script and Python. Many search engines record the search history of their users and profile their surfing, searching habits by giving an excuse for better-personalized search results. In contrast, Duckduckgo respects the privacy of its users and displays the same search results to it's all users for a given search query. It is against the online tracking of user's data and believes that "Your personal data is nobody's business".

Procedure:

- Open any installed web browser (Microsoft Edge, Google Chrome, Mozilla Firefox or Opera)
- Open any search engine of your interest.
- Type the search term, for example, 'sctevt'.
- Click the appropriate link, and record the observation.

Observation: **(at least 10 observation)**

Sl.No.	Name of Browser	Name of Search Engine	Search Term	Topmost link of the website
1	Google Chrome	Google	Sctevt Odisha	
2	Google Chrome	Yahoo	Sctevt Odisha	
3	Microsoft Edge	Bing	Sctevt Odisha	
4	Google Chrome	Google	NEP 2020	
5	Google Chrome	Yahoo	NEP 2020	
6	Microsoft Edge	Bing	NEP 2020	

Conclusions

1. The same search query requested by different web browsers fetches some different results even on the same search engine. Which is likely due to browser settings, cookies, etc
2. The search results of different search engines vary drastically.
3. The different browser has their interfaces to perform browsing & searching tasks.
4. Web results are dynamic depends on various factors like internet speed, time of day, search traffic on that between request machine and server, etc.

Signature of the student

Assessment Scheme

Performance Indicator		Weightage	Marks Awarded
Process Related: ……..Marks"(……..%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	20	
4.	Viva voce	20	
Product Related: …….. Marks* (……..%)			
5.	Record and explanation of observation tables & conclusion made	30	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student : …… Mark Awarded			Signature of Teacher with Date
Process Related	Product related	Total	

Expt. No. **15** **Date:**

Aim of the experiment: Write a basic web page using html and body tag.

Apparatus required: Computer system with any text editor.

Theory:

- HTML program helps to design a web page which can be executed using any web browser.
- Several tags are used to write a program. An opening tag should be followed by a closing tag except some specific tags.
- A tag can have some attributes which helps to personalize the web page.
- <html> tag is the opening tag for any html web page.
- <body> tag comes after the <html> tag.
- An opening tag must have one closing tag, except few tags.

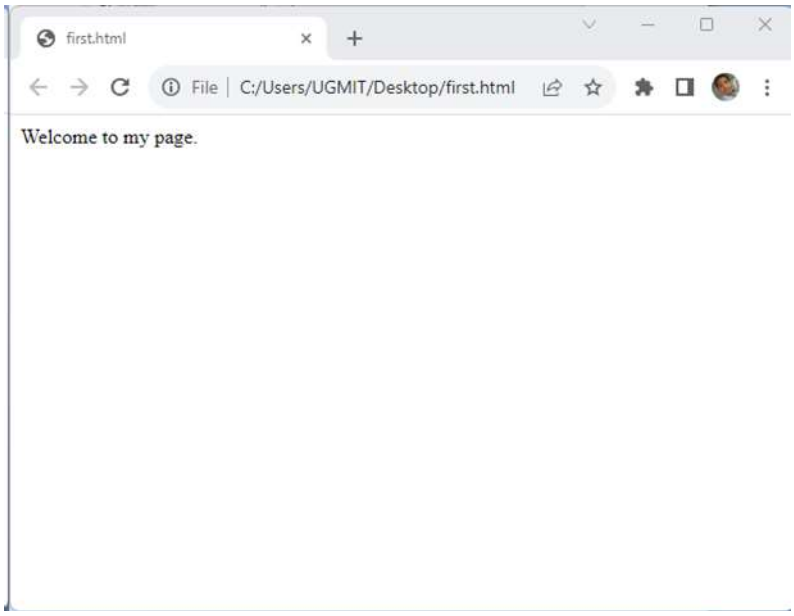
Procedure:

- Open the text editor. Here I use notepad as the text editor.
- Write the code and save the program using '.html' or '.htm' extension.
- Open the saved program using any web browser to see the output.

Program:

```
<html>
      <body>
            Welcome to my page.
      </body>
</html>
```

Output:



Expt. No. 16 **Date:**

Aim of the experiment: To use the different tags of html.

Apparatus required: Computer system with any text editor.

Theory:

Tags of HTML:

1. <html> : The starting tag of HTML. All the content of the webpage will be written inside the <html> and </html> tag.
2. <body> : The body tag holds all the content which will be visible in the webpage.
3. <b> : bold tag
4. <i> : italic tag
5. <u> : underline tag
6. <font> : to set the font color, font size, and font face of the text.
7. <table> : to draw a table inside the webpage.
8. <tr> : to draw a row of the table. This tag is used with <table> tag.
9. <td> : to draw a column and to fill data in the table. This is to be used inside the <tr> tag.
10. <th> : to write the heading of the table.

- HTML program helps to design a web page which can be executed using any web browser.
- Several tags are used to write a program. An opening tag should be followed by a closing tag except some specific tags.
- A tag can have some attributes which helps to personalize the web page.
- <html> tag is the opening tag for any html web page.
- <body> tag comes after the <html> tag.
- An opening tag must have one closing tag, except few tags.

Procedure:

- Open the text editor. Here I use notepad as the text editor.
- Write the code and save the program using '.html' or '.htm' extension.
- Open the saved program using any web browser to see the output.

Program:

Task 1: Use heading tag to create text of different size

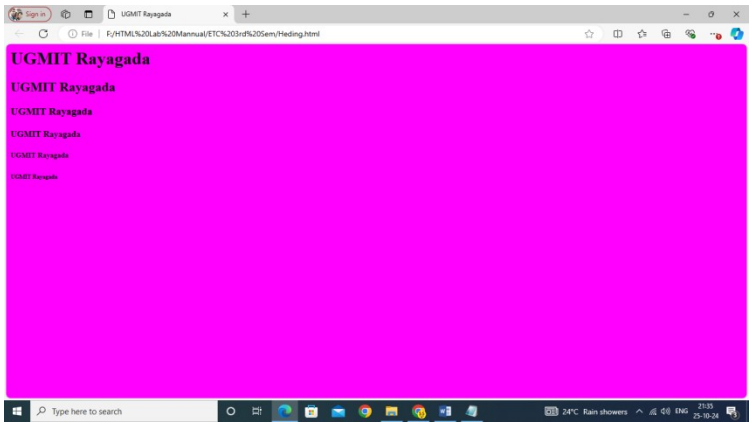
```
<html>
    <head>
        <title> UGMIT Rayagada </title>
    </head>
    <body>
        <h1>UGMIT Rayagada</h1>
        <h2>UGMIT Rayagada</h2>
        <h3>UGMIT Rayagada</h3>
        <h4>UGMIT Rayagada</h4>
        <h5>UGMIT Rayagada</h5>
        <h6>UGMIT Rayagada</h6>
    </body>
</html>
```

Output:

Task 2: Add background colour to the webpage

```
<html>
        <head>
                <title> UGMIT Rayagada </title>
        </head>
        <body bgcolor="#FF00FF">
                        <h1>UGMIT Rayagada</h1>
                        <h2>UGMIT Rayagada</h2>
                        <h3>UGMIT Rayagada</h3>
                        <h4>UGMIT Rayagada</h4>
                        <h5>UGMIT Rayagada</h5>
                        <h6>UGMIT Rayagada</h6>
        </body>
</html>
```

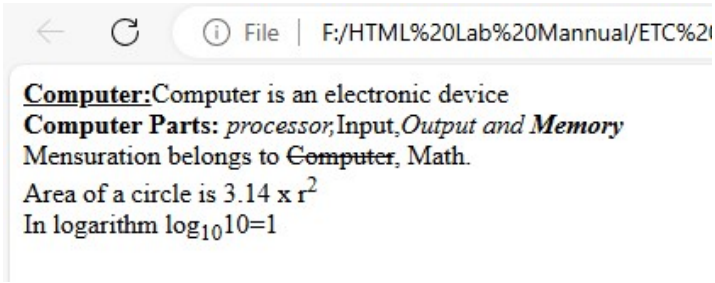
Output:



Task 3: Add <font> tag pair to format the fonts.

```
<html>
    <head>
        <title> UGMIT Rayagada </title>
    </head>
    <body>
        <font size="12" face="arial">
            <b><u>Computer:</u></b> Computer is an electronic device<br>
            <b>Computer Parts:</b> <i>processor,</i> Input,<em>Output and </em>
            <b><i>Memory</i></b><br>
            Mensuration belongs to <s> Computer</s>, Math.<br>
            Area of a circle is 3.14 x r<sup>2</sup> <br>
            In logarithm log<sub>10</sub>10=1
        </font>
    </body>
</html>
```

Output:



Conclusion: From the above experiment, I analyzed and familiarized with HTML and different tags used in HTML to create a general web page.

Signature of the student

Assessment Scheme

Performance Indicator		Weightage	Marks Awarded
Process Related: ……..Marks"(……..%)			
1.	Environment Readiness by student	10	
2.	Explanation of practical components	20	
3.	Procedure adoption and step by step explanation	20	
4.	Viva voce	20	
Product Related: …….. Marks* (…….%)			
5.	Screen shots and explanation of observation tables & conclusion made	30	
	Total	100%	

Mark and percentage weightage for product and process assessment will be decided by the teacher.

Name of the Student : …… Mark Awarded			Signature of Teacher with Date
Process Related	Product related	Total	