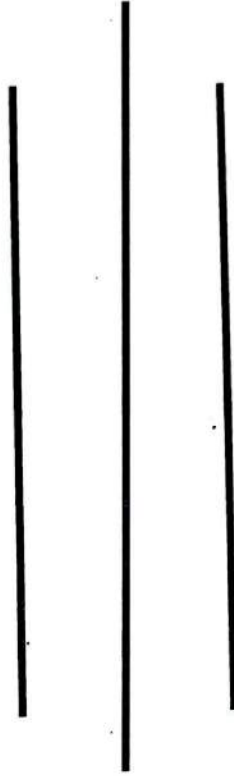


AADIKAVI BHANUBHAKTA CAMPUS

Vyas-01, Bigyanchour, Tanahun



*Lab report on
Programming Concept with C [ICT Ed. 416]*

Submitted by:

Name: Sanjip Guyung.....

Roll No.: 22.....

Submitted To:

Mr. Bibek Bhujel

Subject Teacher

TABLE OF CONTENTS

#	Title	Lab Date	Page #	Lab Submission Date	Remarks
1.	WRITE A PROGRAM IN C TO UNDERSTAND THE BASIC PROGRAM STRUCTURE	2082-08-22 2082-08-22	1	2082-08-29	<i>Bobby Joseph</i>
2.	WRITE A PROGRAM IN C TO GET TWO NUMBERS FROM THE USER AND FIND THEIR SUM, PRODUCT AND DIFFERENCE	2082-08-29 2082-08-29	2	2082-09-07	<i>Bobby Joseph</i>
3.	WRITE A PROGRAM IN C TO CHECK WHETHER A PERSON IS ELIGIBLE TO VOTE OR NOT.	2082-09-07 2082-09-07	3	2082-09-14	<i>Bobby Joseph</i>
4.	WRITE A PROGRAM IN C TO CHECK WHETHER THE GIVEN NUMBERS PRIME OR NOT AND TO COUNT THE NUMBER OF DIGITS.	2082-09-14 2082-09-14	4-5	2082-10-12	<i>Bobby Joseph</i>
5	WRITE A PROGRAM IN C TO PRINT FROM 100 TO 1 USING FOR LOOP.	2082-10-12 2082-10-12	6	2082-10-26	<i>Bobby Joseph</i>
6	WRITE A PROGRAM IN C TO STORE 5 INTEGER IN AN ARRAY AND PRINT THEM.	2082-10-26 2082-10-26	7	2082-11-04	<i>Bobby Joseph</i>
7.	WRITE A PROGRAM IN C TO INPUT 10 NUMBERS INTO AN ARRAY AND DISPLAY THEM IN REVERSE ORDER.	2082-11-04 2082-11-04	8	2082-11-11	<i>Bobby Joseph</i>
8.	WRITE A C PROGRAM TO READ 10 NUMBERS INTO AN ARRAY AND DISPLAY THEM.	2082-11-11 2082-11-11	9	2082-11-25	<i>Bobby Joseph</i>
9.	WRITE A PROGRAM IN C TO FIND THE SUM OF ELEMENTS IN AN ARRAY	2082-11-25 2082-11-25	10	2082-12-02	<i>Bobby Joseph</i>

TABLE OF CONTENTS

#	Title	Lab Date	Page #	Lab Submission Date	Remarks
10.	WRITE A PROGRAM IN C TO FIND THE AVERAGE OF ARRAY ELEMENTS	2082-12-02	11	2082-12-09	Bebeky Buzgely
11.	WRITE A PROGRAM IN C TO FIND THE LARGEST ELEMENTS IN AN ARRAY.	2082-12-09	12	2082-12-16	Bebeky Buzgely
12.	WRITE A PROGRAM IN C TO FIND THE SMALLEST ELEMENTS IN AN ARRAY.	2082-12-09	13	2082-12-16	Bebeky Buzgely

TITLE: WRITE A PROGRAM IN C TO UNDERSTAND THE BASIC PROGRAM STRUCTURE

OBJECTIVES

- To understand the structure of C program.
- To be familiar with basic data types, format specifiers and its uses / functions.

TOOLS USED

- Online C compiler

SOURCE CODE

```
#include <stdio.h>
int main ( ) {
    int num1 = 9;
    int num2 = 18;
    int sum = num1 + num2;
    int rem = num2 % num1;
    int product = num1 * num2;
    printf("The sum is %d, remainder is %d and product is %d\n", sum, rem, prod);
    float marks = 7.521 / 2.72;
    printf("Your final marks is %f\n", marks);
    printf("Your marks is %2f\n", marks);
    char name [6] = "Haze";
    printf("His stage name is %s\n", name);
    printf("%c is the first letter of his stage name", name[0]);
    return 0;
}
```

OUTPUT

The sum is 27, remainder is 2 and product is 162.
Your final marks is 2.765074
Your marks is 2.77
His stage name is Haze.
H is the first letter of his stage name.

TITLE : WRITE A PROGRAM IN C TO GET TWO NUMBERS FROM THE USERS AND FIND THEIR SUM, PRODUCTS AND DIFFERENCE

OBJECTIVES

- To read two numbers from the user and find their sum, product and difference.

TOOLS USED

- Online C compiler

SOURCE CODE

```
#include <stdio.h>
int main () {
    int num1, num2;
    printf ("Enter 1st number:");
    scanf ("%d", &num1);
    printf ("Enter 2nd number:");
    scanf ("%d", &num2);
    int sum = num1 + num2;
    printf ("The sum is %d \n", sum);
    int product = num1 * num2;
    printf ("The product is %d \n", product);
    int difference = num1 - num2;
    printf ("The difference is %d \n", difference);
    return 0;
}
```

OUTPUT

```
Enter 1st number: 20
Enter 2nd number: 10
The sum is 30
The product is 200
The difference is 10
```

TITLE: WRITE A PROGRAM IN C TO CHECK WHETHER A PERSON IS ELIGIBLE TO VOTE OR NOT.

OBJECTIVES

- To write a C program to check whether a program is eligible to vote or not based on their age using if-else statement.

TOOLS USED

- Online C compiler

SOURCE CODE

```
#include <stdio.h>
int main ( ) {
    int age;
    printf("Enter your age: ");
    scanf("%d", &age);
    if (age >= 18) {
        printf("You are eligible to vote.\n");
    }
    else {
        printf("You are not eligible to vote.\n");
    }
    return 0;
}
```

OUTPUT

Case 1:

```
Enter your age: 20
You are eligible to vote.
```

Case 2:

```
Enter your age: 16
You are not eligible to vote.
```

TITLE: WRITE A PROGRAM IN C TO CHECK WHETHER THE GIVEN NUMBER IS PRIME OR NOT AND TO COUNT THE NUMBER OF DIGITS

SOURCE CODE

```
#include <stdio.h>
int main () {
    int num i, is Prime = 1, count = 0, temp;
    printf ("Enter a number:");
    scanf ("%d", & num);
    // check Prime
    if (num <= 1) {
        is prime = 0;
    }
    else
    {
        for (i = 2; i <= num/2; i++)
        {
            if (num % i == 0)
            {
                is Prime = 0;
                break;
            }
        }
    }
    if (is prime == 1)
        printf ("The number is Prime \n");
    else
        printf ("The number is not prime. \n");
}
```

```

//count digit
temp = num;
if (temp == 0)
{
    count = 1;
}
else
{
    while (temp != 0)
    {
        temp = temp / 10;
        count++;
    }
}
printf ("Number of digits of given number = %d\n", count);
return 0;
}

```

OUTPUT

Run 1:

Enter a number : 13

The number is Prime

Number of digits of given number = 2

Run 2:

Enter a number : 25

The number is not prime.

Number of digits of given number = 2

Run 3:

Enter a number : 332

The number is not Prime.

Number of digits of given number = 3

Run 4

Enter a number : 1009

The number is Prime

Number of digits of given number = 4

TITLE: WRITE A PROGRAM IN C TO PRINT NUMBERS FROM 100 TO 1 USING FOR LOOP.

SOURCE CODE

```
#include <stdio.h>
int main ()
{
    int i;
    for (i=100; i>=1; i--)
    {
        printf("%d", i);
    }
    return 0;
}
```

OUTPUT

100 99 98 97 96 95 94 93 92 91 90
89 88 87 86 85 84 83 82 81 80 79
78 77 76 75 74 73 72 71 70 69 68
67 66 65 64 63 62 61 60 59 58 57
56 55 54 53 52 51 50 49 48 47 46
45 44 43 42 41 40 39 38 37 36 35
34 33 32 31 30 29 28 27 26 25 24
23 22 21 20 19 18 17 16 15 14 13
12 11 10 9 8 7 6 5 4 3 2
1

TITLE 6: WRITE A PROGRAM IN C TO STORE 5 INTEGERS IN AN ARRAY AND PRINT THEM.

SOURCE CODE

```
#include <stdio.h>
int main () {
    int a [5], i;
    printf ("Enter 5 integers: \n");
    for (i=0; i<5; i++) {
        scanf ("%d", &a[i]);
    }
    printf ("Entered: \n");
    for (i=0; i<5; i++) {
        printf ("%d", a[i]);
    }
    return 0;
}
```

OUTPUT

Enter 5 integers
1 2 3 4 5

~~Entered~~
1 2 3 4 5

TITLE 7: WRITE A C PROGRAM TO INPUT 10 NUMBERS
INTO AN ARRAY AND DISPLAY THEM IN
REVERSE ORDER

SOURCE CODE

```
#include <stdio.h>
int main() {
    int a[10], i;
    printf("Enter 10 numbers: \n");
    for (i=0; i<10; i++) {
        scanf("%d", &a[i]);
    }
    printf("Reverse order: \n");
    for (i=9; i>=0; i--) {
        printf("%d", a[i]);
    }
    return 0;
}
```

OUTPUT

Enter 10 numbers
1 2 3 4 5 6 7 8 9 10
Reverse order:
10 9 8 7 6 5 4 3 2 1

TITLE 8: WRITE A C PROGRAM TO READ IN NUMBERS AND AN ARRAY AND DISPLAY THEM.

SOURCE CODE

```
#include <stdio.h>
int main () {
    int n, i;
    printf("Enter number of elements:");
    scanf ("%d", &n);
    int a[n];
    printf ("Enter %d numbers : \n", n);
    for (i = 0; i < n; i++) {
        scanf ("%d", &a[i]);
    }
    printf ("Numbers are: \n");
    for (i = 0; i < n; i++) {
        printf ("%d", a[i]);
    }
    return 0;
}
```

OUTPUT

Enter number of elements=4

Enter 4 numbers

5 10 15 20

Numbers are:

5 10 15 20

TITLE 9: WRITE A PROGRAM TO FIND THE SUM OF ELEMENTS IN AN ARRAY

SOURCE CODE

```
#include <stdio.h>
int main () {
    int n, i, sum = 0;
    printf ("Enter number of elements: ");
    scanf ("%d", &n);
    int a[n];
    printf ("Enter %d numbers: \n", n);
    for (i = 0; i < n; i++) {
        scanf ("%d", &a[i]);
        sum += a[i];
    }
    printf ("sum = %d", sum);
    return 0;
}
```

Output

```
Enter number of elements = 5
Enter 5 numbers
1 2 3 4 5
Sum = 15
```

TITLE 10: WRITE A PROGRAM IN C TO FIND THE AVERAGE OF ARRAY ELEMENTS.

SOURCE CODE

```
#include <stdio.h>
int main() {
    int n, i, sum = 0;
    float avg;
    printf("Enter number of elements:");
    scanf("%d", &n);
    int a[n];
    printf("Enter %d numbers: \n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", a[i]);
        sum + a[i];
    }
    avg = (float)sum/n;
    printf("Average = %2f; avg);
    return 0;
}
```

OUTPUT

Enter number of elements: 5

Enter 5 numbers:

2 4 6 8 10

Average = 6.00

TITLE 11: WRITE A PROGRAM IN C TO FIND THE LARGEST ELEMENT IN AN ARRAY.

SOURCE CODE

```
#include <stdio.h>
int main () {
    int n, i, max;
    printf ("Enter number of elements: ");
    scanf ("%d", &n);
    int a [n];
    printf ("Enter %d numbers: \n", n);
    for (i = 0; i < n; i++) {
        scanf ("%d", &a [i]);
    }
    max = a [0];
    for (i = 1; i < n; i++) {
        if (a [i] > max)
            max = a [i];
    }
    printf ("Largest element = %d", max);
    return 0;
}
```

OUTPUT

Enter number of elements: 5

Enter 5 numbers:

3 9 2 15 6

Largest element = 15

TITLE 12: WRITE A PROGRAM IN C TO FIND THE SMALLEST ELEMENT IN AN ARRAY .

SOURCE CODE

```
#include <stdio.h>
int main () {
    int n, i, min;
    printf ("Enter number of elements: ");
    scanf ("%d", &n);
    int a[n];
    printf ("Enter %d numbers: \n", n);
    for (i=0; i<n; i++) {
        scanf ("%d", &a[i]);
    }
    min = a[0];
    for (i=1; i<n; i++) {
        if (a[i] < min)
            min = a[i];
    }
    printf ("Smallest element = %d", min);
    return 0;
}
```

OUTPUT

Enter number of elements = 5
Enter 5 numbers
3 9 2 15 6
Smallest element = 2

Becky Buzel