

**FYBSC(IT) [SEM-1]**

**Practical Journal**

**Year : 2025-26**

| **Subject Code:** | **105** |
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| **Subject Name:** | **Practical – I** |
|  | |
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| **Date:** | **8/10/2025** |

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Q-1 : Check whether a number is palindrome.

#include <stdio.h

int main()

{

int num, rev = 0, temp;

printf("Enter a number: ");

scanf("%d", &num);

temp = num;

while(temp != 0) {

rev = rev \* 10 + temp % 10;

temp /= 10;

}

if(rev == num)

printf("%d is a palindrome.\n", num);

else

printf("%d is not a palindrome.\n", num);

return 0;

}

}

Output:-

divy@ubuntu:~/Q1$ gcc q1.c

divy@ubuntu:~/Q1$ ./a

Enter a number: 121

121 is a palindrome.

divy.c@ubuntu:~/Q1$

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Q-2 : Reverse a given string.

#include <stdio.h>

#include <string.h>

int main()

{

char str[100];

printf("Enter a string: ");

scanf("%s", str);

int len = strlen(str);

printf("Reversed string: ");

for(int i=len-1;i>=0;i--)

printf("%c", str[i]);

printf("\n");

return 0;

}

Output:-

divy@ubuntu:~/Q2$ gcc q2.c

divy@ubuntu:~/Q2$ ./a

Enter a string: hello

Reversed string: olleh

divy@ubuntu:~/Q2$

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Q-3 : Delete an element from an array.

#include <stdio.h>

int main()

{

int n, pos, i;

printf("Enter number of elements: ");

scanf("%d", &n);

int arr[n];

printf("Enter elements: ");

for(i=0;i<n;i++) scanf("%d", &arr[i]);

printf("Enter position to delete (0-based): ");

scanf("%d", &pos);

for(i=pos;i<n-1;i++) arr[i]=arr[i+1];

n--;

printf("Array after deletion: ");

for(i=0;i<n;i++) printf("%d ", arr[i]);

printf("\n");

return 0;

}

Output:-

divy@ubuntu:~/Q3$ gcc q3.c

divy@ubuntu:~/Q3$ ./a

Enter number of elements: 5

Enter elements: 10 20 30 40 50

Enter position to delete (0-based): 2

Array after deletion: 10 20 40 50

divy@ubuntu:~/Q3$

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Q-4 : Check whether a number is even or odd.

#include <stdio.h>

int main()

{

int n;

printf("Enter a number: ");

scanf("%d", &n);

if(n%2==0)

printf("%d is even.\n", n);

else

printf("%d is odd.\n", n);

return 0;

}

Output:-

divy@ubuntu:~/Q4$ gcc q4.c

divy@ubuntu:~/Q4$ ./a

Enter a number: 7

7 is odd.

divy@ubuntu:~/Q4$

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Q-5 : Compare length of two strings.

#include <stdio.h>

#include <string.h>

int main()

{

char str1[100], str2[100];

printf("Enter first string: ");

scanf("%s", str1);

printf("Enter second string: ");

scanf("%s", str2);

int len1 = strlen(str1), len2 = strlen(str2);

if(len1>len2) printf("First string is longer.\n");

else if(len2>len1) printf("Second string is longer.\n");

else printf("Both strings have equal length.\n");

return 0;

}

Output:-

divy@ubuntu:~/Q5$ gcc q5.c

divy@ubuntu:~/Q5$ ./a

Enter first string: hello

Enter second string: world!

Second string is longer.

divy@ubuntu:~/Q5$

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Q-6 : Compute factorial of a number.

#include <stdio.h>

int main()

{

int n, i;

long fact=1;

printf("Enter a number: ");

scanf("%d", &n);

for(i=1;i<=n;i++) fact \*= i;

printf("Factorial of %d is %ld\n", n, fact);

return 0;

}

Output:-

divy@ubuntu:~/Q6$ gcc q6.c

divy@ubuntu:~/Q6$ ./a

Enter a number: 5

Factorial of 5 is 120

divy@ubuntu:~/Q6$

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Q-7 : Compute the sum of elements in a 1D array.

#include <stdio.h>

int main()

{

int n, i, sum=0;

printf("Enter number of elements: ");

scanf("%d", &n);

int arr[n];

printf("Enter elements: ");

for(i=0;i<n;i++) {

scanf("%d", &arr[i]);

sum += arr[i];

}

printf("Sum of elements: %d\n", sum);

return 0;

}

Output:-

divy@ubuntu:~/Q7$ gcc q7.c

divy@ubuntu:~/Q7$ ./a

Enter number of elements: 5

Enter elements: 10 20 30 40 50

Sum of elements: 150

divy@ubuntu:~/Q7$

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Q-8 : Print the first N natural numbers.

#include <stdio.h>

int main()

{

int n;

printf("Enter N: ");

scanf("%d", &n);

for(int i=1;i<=n;i++) printf("%d ", i);

printf("\n");

return 0;

}

Output:-

divy@ubuntu:~/Q8$ gcc q8.c

divy@ubuntu:~/Q8$ ./a

Enter N: 10

1 2 3 4 5 6 7 8 9 10

divy@ubuntu:~/Q8$

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Q-9 : Convert a string to lowercase.

#include <stdio.h>

#include <ctype.h>

int main()

{

char str[100];

printf("Enter a string: ");

scanf("%s", str);

for(int i=0; str[i]; i++) str[i] = tolower(str[i]);

printf("Lowercase: %s\n", str);

return 0;

}

Output:-

divy@ubuntu:~/Q9$ gcc q9.c

divy@ubuntu:~/Q9$ ./a

Enter a string: HELLO

Lowercase: hello

divy@ubuntu:~/Q9$

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Q-10 : Convert all vowels in a string to uppercase.

#include <stdio.h>

#include <ctype.h>

int main()

{

char str[100];

printf("Enter a string: ");

scanf("%s", str);

for(int i=0; str[i]; i++) {

if(str[i]=='a'||str[i]=='e'||str[i]=='i'||str[i]=='o'||str[i]=='u') str[i]=toupper(str[i]);

}

printf("Modified string: %s\n", str);

return 0;

}

Output:-

divy@ubuntu:~/Q10$ gcc q10.c

divy@ubuntu:~/Q10$ ./a

Enter a string: education

Modified string: EdUcAtIOn

divy@ubuntu:~/Q10$

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Q-11 : Print first N multiples of a number.

#include <stdio.h>

int main()

{

int n, x;

printf("Enter number: ");

scanf("%d", &x);

printf("Enter N: ");

scanf("%d", &n);

for(int i=1;i<=n;i++) printf("%d ", x\*i);

printf("\n");

return 0;

}

Output:-

divy@ubuntu:~/Q11$ gcc q11.c

divy@ubuntu:~/Q11$ ./a

Enter number: 5

Enter N: 5

5 10 15 20 25

divy@ubuntu:~/Q11$

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Q-12 : Count the number of words in a string.

#include <stdio.h>

#include <string.h>

int main()

{

char str[200];

int count=0;

printf("Enter a string: ");

getchar();

fgets(str, sizeof(str), stdin);

for(int i=0; str[i]; i++) {

if(str[i]==' '||str[i]=='\n') count++;

}

printf("Number of words: %d\n", count+1);

return 0;

}

Output:

divy@ubuntu:~/Q12$ gcc q12.c

divy@ubuntu:~/Q12$ ./a

Enter a string: Hello world from C

Number of words: 4

divy@ubuntu:~/Q12$

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Q-13 : Find the smallest of four numbers.

#include <stdio.h>

int main()

{

int a,b,c,d;

printf("Enter four numbers: ");

scanf("%d %d %d %d", &a,&b,&c,&d);

int smallest=a;

if(b<smallest) smallest=b;

if(c<smallest) smallest=c;

if(d<smallest) smallest=d;

printf("Smallest number: %d\n", smallest);

return 0;

}

Output:

divy@ubuntu:~/Q13$ gcc q13.c

divy@ubuntu:~/Q13$ ./a

Enter four numbers: 12 5 20 8

Smallest number: 5

divy@ubuntu:~/Q13$

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Q-14 : Find the largest of four numbers.

#include <stdio.h>

int main()

{

int a,b,c;

printf("Enter three numbers: ");

scanf("%d %d %d", &a,&b,&c);

int largest=a;

if(b>largest) largest=b;

if(c>largest) largest=c;

printf("Largest number: %d\n", largest);

return 0;

}

Output:

divy@ubuntu:~/Q14$ gcc q14.c

divy@ubuntu:~/Q14$ ./a

Enter three numbers: 7 12 9

Largest number: 12

divy@ubuntu:~/Q14$

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Q-15 : Compare two strings.

#include <stdio.h>

#include <string.h>

int main()

{

char str1[100], str2[100];

printf("Enter first string: ");

scanf("%s", str1);

printf("Enter second string: ");

scanf("%s", str2);

int cmp = strcmp(str1,str2);

if(cmp==0) printf("Strings are equal.\n");

else if(cmp>0) printf("First string is greater.\n");

else printf("Second string is greater.\n");

return 0;

}

Ubuntu-style Output:

divy@ubuntu:~/Q15$ gcc q15.c

divy@ubuntu:~/Q15$ ./a

Enter first string: apple

Enter second string: banana

Second string is greater.

divy@ubuntu:~/Q15$

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