Practical 3

1. #include<stdio.h>

int main()

{

int n1,n2;

printf("Enter first number: ");

scanf("%d", &n1);

printf("Enter second number: ");

scanf("%d", &n2);

if (n1>n2)

{

printf("The highest number is: %d\n");

}

else if(n2>n1)

{

printf("The highest number is: %d\n");

}

else

{

printf("Both numbers are equal: %d");

}

}

2. #include<stdio.h>

int main()

{

int n1,n2,n3;

printf("Enter three integer numbers: ");

scanf("%d %d %d",&n1,&n2,&n3);

if(n1>n2 && n1>n3)

printf("The largest number is: %d \n",n1);

else if(n2>n1 && n1>n3)

printf("The largest number is: %d \n",n2);

else

printf("The largest number is: %d \n",n3);

if(n1<n2 && n1<n3)

printf("The smallest number is: %d \n",n1);

else if (n2<n1 && n2<n3)

printf("The smallest number is: %d \n",n2);

else

printf("The smallest number is: %d \n",n3);

}

3. #include<stdio.h>

int main()

{

float bs,ns;

char name[15];

printf("Enter your name: ");

scanf("%s",&name);

printf("Enter your basic salary: ");

scanf("%f",&bs);

if(bs<=5000)

ns=bs+bs\*.05;

else if(bs<=10000)

ns=bs+bs\*.1;

else

ns=bs+bs\*.15;

printf("%s Your new salary= %f",name,ns);

}

4. #include<stdio.h>

int main()

{

float d,c,a,r;

float PI=3.14159;

printf("Enter radius of the circle: ");

scanf("%f",&r);

printf("Diameter=%f \n",d=r\*2);

printf("Circumference=%f \n",c=2\*PI\*r);

printf("Area=%f \n",a=PI\*r\*r);

}

5. #include<stdio.h>

int main()

{

int n1,n2;

printf("Enter The First Integer: ");

scanf("%d",&n1);

printf("Enter The Second Integer: ");

scanf("%d",&n2);

if(n2!=0 && n1%n2==0)

printf("%d is a multiple of %d \n",n1,n2);

else

printf("%d is not a multiple of %d\n",n1,n2);

}

6. #include<stdio.h>

int main()

{

printf("\*Integer Equivalents\*\n");

printf("---------------------\n");

printf("Uppercase Letters:\n");

printf(" A: %d\n", 'A');

printf(" B: %d\n", 'B');

printf(" C: %d\n", 'C');

printf("\nLowercase Letters:\n");

printf(" a: %d\n", 'a');

printf(" b: %d\n", 'b');

printf(" c: %d\n", 'c');

printf("\nDigits: \n");

printf(" 0: %d\n", '0');

printf(" 1: %d\n", '1');

printf(" 2: %d\n", '2');

printf("\nSpecial Symbols:\n");

printf(" $: %d\n", '$');

printf(" \*: %d\n", '\*');

printf(" +: %d\n", '+');

printf(" /: %d\n", '/');

printf("\n : %d\n",' ');

}

7. #include<stdio.h>

int main()

{

float bs,ts,fs,es;

char c;

int m;

printf("Enter you basic salary: ");

scanf("%f",&bs);

if(bs>=50000)

ts=bs+bs\*.15;

else if(bs<25000)

ts=bs+bs\*.12;

else

ts=bs+bs\*.1;

printf("Enter your number of service years: ");

scanf("%d",&m);

if(m>=5)

es=ts+bs\*.1;

else

es=ts;

printf("Enter C if you live in Colombo,otherwise enter N: ");

scanf(" %c",&c);

if (c=='c')

fs=es+bs\*0.10;

else

fs=es;

printf("Your final salary: %f",fs);

}

Practical 04

1. #include<stdio.h>

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

if(n%2==0)

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

else

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

}

2. #include<stdio.h>

int main()

{

int n1,n2,a,o,b;

printf("Enter first number: ");

scanf("%d",&n1);

printf("Enter second number: ");

scanf("%d",&n2);

printf("Choose a operation\n1-->+\n2-->-\n3-->\*\n4-->/\n Enter operation: ");

scanf("%d",&o);

switch(o)

{

case 1:a=n1+n2;

printf("Answer is=%d",a);

break;

case 2:if(n1<n2)

a=n2-n1;

else

a=n1-n2;

printf("Answer is=%d",a);

break;

case 3:a=n1\*n2;

printf("Answer is=%d",a);

break;

case 4:if(n1<=n2)

a=n2/n1;

else

a=n1/n2;

b=n1%n2;

printf("Answer is = %d\Remainder",a,b);

break;

default:printf("Error:Invalid operation");

}

}

3. #include<stdio.h>

int main()

{

int radius;

float pi= 3.14;

printf("Select an operation: ");

printf("1. calculate the circumference of the circle\n");

printf("2. Calculate the area of circle\n");

printf("3. Calculate the volume of the sphere\n");

printf("4. Exit\n");

scanf("%d",radius);

switch(radius)

{

case 1:

printf("Enter the radius of circle: ");

break;

case 2:

printf("Enter the radius of the circle: ");

scanf("%f", &radius);

printf("The area of the circle is %f\n",pi\*radius\*radius);

break;

case 3:

printf("Enter the radius of the sphere");

scanf("%f", &radius);

printf("The volume of the sphere is %f\n",(4/3)\*radius\*radius\*radius);

break;

case 4:

printf("Exiting...\n");

}

return 0;

}

4. #include<stdio.h>

int main()

{

int radius;

float pi= 3.14;

printf("Select an operation: ");

printf("1. calculate the circumference of the circle\n");

printf("2. Calculate the area of circle\n");

printf("3. Calculate the volume of the sphere\n");

printf("4. Exit\n");

scanf("%d",radius);

switch(radius)

{

case 1:

printf("Enter the radius of circle: ");

break;

case 2:

printf("Enter the radius of the circle: ");

scanf("%f", &radius);

printf("The area of the circle is %f\n",pi\*radius\*radius);

break;

case 3:

printf("Enter the radius of the sphere");

scanf("%f", &radius);

printf("The volume of the sphere is %f\n",(4/3)\*radius\*radius\*radius);

break;

case 4:

printf("Exiting...\n");

}

return 0;

}

5. #include <stdio.h>

int main() {

char letter;

printf("Enter a letter: ");

scanf("%c", &letter);

switch (letter) {

case 'a':

case 'e':

case 'i':

case 'o':

case 'u':

case 'A':

case 'E':

case 'I':

case 'O':

case 'U':

printf("%c is a vowel.\n", letter);

break;

default:

printf("%c is not a vowel.\n", letter);

break;

}

return 0;

}

Practical 05

1. #include<stdio.h>

int main()

{

int count=1;

do

{

printf("%d",count);

count++;}

while(count<=100);

}

#include<stdio.h>

int main()

{

int x;

for(x=1;x<=100;x++)

{

printf("%d",x);

}

}

#include<stdio.h>

int main()

{

int count=0,x=1;

while(count<100)

{

printf("%d",x);

count++;

x++;}

}

2. #include<stdio.h>

int main()

{

float avg,mark,total;

int count=0;

while(count<10)

{

printf("Enter your mark");

scanf("%f",&mark);

count++;

total=total+mark;

}

avg=total/count;

printf("Total is %f",total);

printf("Average is %f",avg);

}

3. #include<stdio.h>

int main()

{

int number,c=1,d=1;

printf("Enter a number to calculate factorial");

scanf("%d",&number);

if(number<0)

{printf("Error: Cant calculate the factorial of a negative number");}

else{

do

{

c=c\*d;

d++;

}

while (d<=number);

printf("Factorial is %d",c);}

}

4. #include<stdio.h>

int main()

{

int total=0,number,i=1,;

printf("Enter a number");

scanf("%d",&number);

do

{

total=total+i;

i++;

}

while(i<=number);

printf("Total is %d",total);

}

5. #include<stdio.h>

int main()

{

int reverse=0,number,d=0;

printf("Enter a number to reverse the digits");

scanf("%d",&number);

do

{

d=number%10;

reverse=reverse\*10+d;

number=number/10;

}

while (number>0);

printf("Reversed number is %d",reverse);

}

6. #include<stdio.h>

int main()

{

int number,exponent,i=1,a=1;

printf("Enter the base");

scanf("%d",&number);

printf("Enter the exponent");

scanf("%d",&exponent);

do

{

a=a\*number;

i++;

}

while(i<=exponent);

printf("Answer=%d",a);

}

7. #include<stdio.h>

int main()

{

int a=0,b=1,c=0,x=1;

while(x<11)

{

c=a+b;

b=a;

a=c;

printf(" %d ",c);

x++;

}

}

8. #include<stdio.h>

int main ()

{

int number,a=0,total=0,digits=0;

printf("Enter a number");

scanf("%d",&number);

int original=number;

do

{ number=number/10;

digits++;

}

while(number>0);

number=original;

do

{

a=number%10;

total=total+pow(a,digits);

number=number/10;

} while(number>0);

if (original == total)

printf("%d is an Armstrong number",original);

else

printf("%d is not an Armstrong number",original);

}

9.