Q.N.1**.** Write a program in C to print all the prime numbers between 1 and 100.

Solution: C Program to Print Prime Numbers from 1 to 100 using While Loop:

#include <stdio.h>

void main()

{

int i, Number = 1, count;

printf(" Prime Number from 1 to 100 are: \n");

while(Number <= 100)

{

count = 0;

i = 2;

while(i <= Number/2)

{

if(Number%i == 0)

{

count++;

break; }

i++;

}

if(count == 0 && Number != 1 )

{

printf(" %d ", Number);

}

Number++;

}

}

Output: Prime Number from 1 to 100 are: 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

Q.N. 2 Write a program in C to generate following pattern:

1

23

456

78910

Solution:

#include<stdio.h>

void main ()

{

int row, i, j, num= 1;

printf("Enter number of rows:"); scanf("%d", &row);

for (i=1; i<=row; i++)

{

for (j=1; j<=i; ++j)

{

printf("%d ", num);

num++;

}printf("\n");

}

}

OUTPUT:

Enter number of rows:4

1

2 3

4 5 6

1. 8 9 10

Q.N.3Write a menu driven program using switch case to calculate

* Area of circle
* Area of sphere

SOLLUTION:

#include <stdio.h> void main ()

{

int choice;

float area,rad;

printf("Input 1 for area of circle\n");

printf("Input 2 for area of sphere\n");

printf("enter your choice to proceed : ");

scanf("%d",&choice);

switch(choice)

{case 1:

printf("Input radius of the circle : "); scanf("%d",&r);

area=3.14\*rad\*rad;

break;

case 2:

printf("Input radius of the sphere : "); scanf("%d",&r); area=4\*3.14\*rad\*rad;

break;

}

printf("The area is : %f \n",area);

}

OUTPUT:

Input 1 for area of circle

Input 2 for area of sphere

Input your choice : 2

Input radius of the sphere : 5

The area is : 314.000

Q.N.4 Some text file is given; create another text file replacing the following words

“Ram” to “Hari”, “Sita” to “Gita”, and “Govinda” to “Shiva”.

SOLLUTION:

#include<stdio.h>

#include<string.h>

int main()

{

FILE \*fp,\*fpp;

char c[15];

fp=fopen("file.txt","r");

if(fp==NULL)

{

printf("Cannot open file with name file.txt");

exit(1);

}

fpp=fopen("new-file.txt","w");

if(fpp==NULL)

{

printf("Cannot create file with name new-file.txt");

exit(1);

}

while(fscanf(fp,"%s",c)!=EOF)

{

if(strcmp(c, "Ram")==0)

fprintf(fpp, "Hari ",c);

else if(strcmp(c, "Sita")==0)

fprintf(fpp,"Gita",c);

else if(strcmp(c, "Govinda")==0)

fprintf(fpp, "Shiva",c);

else fprintf(fpp,"%s ",c);

}

printf("Completed!");

fclose(fp);

fclose(fpp);

return 0;

}

OUTPUT: As I don’t have file so it ends on first loop.

and outputs as: Cannot open file with name file.txt

SOLLUTION:

B. Define a Structure Employee having data members name, address and salary. Take data for n employee in an array dynamically and find the average salary.

SOLLUTION:

#include<stdio.h>

#define n 3

void main()

{

struct employee

{

char name[20];

char address[20];

float salary;

} s[n];

int i;

float avgSalary,sum=0;

//Loop to read data for n employee

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

{

printf("\nEnter details of employee %d\n",i+1);

printf("Enter name:");

fgets(s[i].name,20,stdin);

printf("Enter salary:");

scanf("%f",&s[i].salary);

fflush(stdin);

printf("Enter address:");

fgets(s[i].address,20,stdin);

}

//Loop to find the sum of salary of all employees

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

{

sum=sum+s[i].salary;

}

avgSalary=sum/n;

printf("Average salary of employee: %f",avgSalary);

}

OUTPUT:

Enter details of employee 1

Enter name:ram

Enter salary:5000

Enter address:ktm

Enter details of employee 2

Enter name:shyam

Enter salary:9000

Enter address:pokhara

Enter details of employee 3

Enter name:hari

Enter salary:7000

Enter address:dhading

Average salary of employee: 7000.000