1 . Re-write and show the basic parts in following program . Insert comments while re-write for this purpose.

ANS:

#include <stdio.h> // Needed to perform IO operations

int main() { // Program entry point

printf("Hello, world!\n"); // Says Hello

return 0; // Terminate main()

} // End of main()

2(a). Write Output?

#include <stdio.h>

int main()

{

char chr;

int character1,character2;

printf("enter a character: ");

scanf("%c", &chr);

printf("enter integer value of first number: ");

scanf("%d", &character1);

printf("enter integer value of next number: ");

scanf("%d", &character2);

printf("you entered %c\n & sum of number:%d\n",chr,character1+character2);

return 0;

}

Ans:

Character: A

First number : 15

next number:5

Sum of output : 20

2(b). What is math.h doing in the following program ? write output of this program ?.

Ans:

The **math.h** header defines various mathematical functions and one macro. All the functions available in this library take **double** as an argument and return **double** as the result.

code:

#include <stdio.h>

#include<math.h>

int main()

{

int integer=9876;

float decimal=987.6543;

printf("1. value of the number is : %6d\n",integer);

printf("2. value of the number is : %3d\n",integer);

printf("3. value of the number is : %.2f\n",decimal);

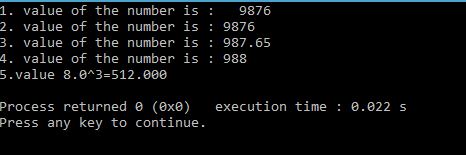
printf("4. value of the number is : %.f\n",987.6543);

printf("5.value 8.0^3=%.3f\n",pow(8.0,3));

return 0;

}

Output:



5(a). write output.

#include <stdio.h>

int main()

{

int\*pc;

int c;

c=22;

printf("1.Property of c:%u\n",&c);

printf("2.Property of c:%d\n\n",c);

pc=&c;

printf("3.Property of pc:%u\n",pc);

printf("4.Property of pc:%d\n\n",\*pc);

c=11;

printf("5.Property of pc:%u\n",pc);

printf("6.Property of pc:%d\n\n",\*pc);

\*pc=2;

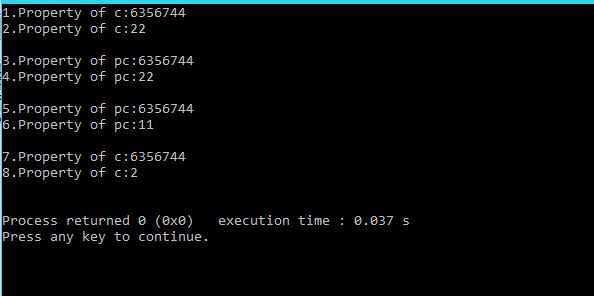
printf("7.Property of c:%u\n",&c);

printf("8.Property of c:%d\n\n",c);

return 0;

}

Output:



5(b).

write a program which ask the user to provide an integet number and then it will check whether the given number is a prime number .finally the program will inform the results of the checking to the user.use separete sub-function to collect input user and anothe sub function check prime number.

ANS:

#include <stdio.h>

int main()

{

int n, i, flag = 0;

printf("Enter integer number: ");

scanf("%d", &n);

for(i = 2; i <= n/2; ++i)

{

if(n%i == 0)

{

flag = 1;

break;

}

}

if (n == 1)

{

printf("1 is neither a prime nor a composite number.");

}

else

{

if (flag == 0)

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

else

printf("%d is not a prime number.", n);

}

return 0;

}

6. write program:

Ans: I,ii,iii,

#include<stdio.h>

main()

{

int i,size,max,max2,max3,position;

int TotalMarks,Assignment;

printf("Enter size to find average of 3 best text marks out of given size\n");

scanf("%d",&size);

int a[size],temp[size-1],temp1[size-2];

printf("Enter numbers in array\n");

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

{

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

}

max=a[0];

position=0;

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

{

if(a[i]>max)

{

max=a[i];

position=i;

}

}

for(i=0;i<size-1;i++)

{

if(i<position)

{

temp[i]=a[i];

}

if(i>=position)

{

temp[i]=a[i+1];

}

}

max2=temp[0];

printf("\n");

for(i=0;i<size-1;i++)

{

if(temp[i]>max2)

{

max2=temp[i];

}

}

for(i=1;i<size-2;i++)

{

if(i<position)

{

temp1[i]=a[i];

}

if(i>=position)

{

temp1[i]=a[i];

}

max3=temp1[1];

printf("\n");

for(i=1;i<size-2;i++)

{

if(temp1[i]>max3)

{

max3=temp1[i];

}

}

printf("Average of 3 best out of %d test marks is %d + %d + %d/3=%f\n",size,max,max2,max3,((max+max2+max3)/3.0));

}

}

iv) :

#include <stdio.h>

void main()

{

float tot, avg,assignment;

printf("Enter marks number\n");

scanf("%f%f", &avg, &assignment);

tot = avg+assignment;

printf("Total marks = %.2f\n", tot);

}

7: write a program

ANS: I,ii:

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include <math.h>

double hypotenuse(double x, double y, double z);

int main(void)

{

int i,j;

double side1, side2, side3, counter;

side3 = 1;

int table[4][3] =

{

{ 1, 2, 3 },

{ 4, 5, 6 },

{ 7, 8, 9 },

{ 10, 11, 12 }

};

for ( i = 0; i < 4; i++);

{

for ( j = 0; j < 3; j++)

{

printf("Table [%d] [%d] = %d \n", i, j, table[i][j]);

}

}

for (counter = 0; counter <= 2; counter++) {

printf("Enter values for two sides: ");

scanf("%lf %lf", &side1, &side2);

printf("%.2f\n", hypotenuse(side1, side2, side3));

}

return 0;

}

double hypotenuse(double x, double y, double z) {

x \*= x;

y \*= y;

z = sqrt(x + y);

return z;

}

8. write program:

ANS:

#include<stdio.h>

#include<conio.h>

void creation();

void deposit();

void withdraw();

void lowbal();

int a=0,i = 1001;

struct bank

{

int no;

char name[20];

float bal;

float dep;

}s[100];

int main()

{

int ch;

do

{

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

printf("\n BANKING ");

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

printf("\n1. Create New Account");

printf("\n2. Cash Deposit ");

printf("\n3. Cash Withdraw");

printf("\n4. Low Balance Enquiry");

printf("\n5. Exit");

printf("\nEnter your choice : ");

scanf("%d",&ch);

switch(ch)

{

case 1: creation();

break;

case 2: deposit();

break;

case 3: withdraw();

break;

case 4: lowbal();

break;

case 5:

break;

defalut: printf("Choice a Valid option !!");

getch();

}

}while(ch!=5);

}

void creation()

{

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

printf("\n NEW ACCOUNT CREATION ");

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

printf("\nYour Account Number is :%d",i);

s[a].no = i;

printf("\nEnter your Name: ");

scanf("%s",s[a].name);

printf("\nYour Deposit is Minimum Rs.500");

s[a].dep=500;

a++;

i++;

getch();

}

void deposit()

{

int no,b=0,m=0;

float aa;

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

printf("\n CASH DEPOSIT ");

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

printf("\nEnter your Account Number : ");

scanf("%d",&no);

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

{

if(s[b].no == no)

m = b;

}

if(s[m].no == no)

{

printf("\n Account Number : %d",s[m].no);

printf("\n Name : %s",s[m].name);

printf("\n Deposit : %f",s[m].dep);

printf("\n Deposited Amount : ");

scanf("%f",&aa);

s[m].dep+=aa;

printf("\nThe Balance in Account is :%f",s[m].dep);

getch();

}

else

{

printf("\nACCOUNT NUMBER IS INVALID");

getch();

}

}

void withdraw()

{

int no,b=0,m=0;

float aa;

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

printf("\n CASH WITHDRAW ");

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

printf("\nEnter your Account Number : ");

scanf("%d",&no);

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

{

if(s[b].no == no)

m = b;

}

if(s[m].no == no)

{

printf("\n Account Number : %d",s[m].no);

printf("\n Name : %s",s[m].name);

printf("\n Deposit : %f",s[m].dep);

printf("\n Withdraw Amount : ");

scanf("%f",&aa);

if(s[m].dep<aa+500)

{

printf("\nCANNOT WITHDRAW YOUR ACCOUNT HAS MINIMUM BALANCE");

getch();

}

else

{

s[m].dep-=aa;

printf("\nThe Balance Amount in Account is:%f",s[m].dep);

}

}

else

{

printf("INVALID");

getch();

}

getch();

}

void lowbal()

{

int no,b=0,m=0;

float aa;

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

printf("\n FOLLOWING ACCOUNT HOLDER'S BALANCE IS LESS THAN 1000 ");

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

for(b=0;b<a;b++)

{

if(s[b].dep<1000)

{

printf("\n\n Account Number : %d",s[b].no);

printf("\n Name : %s",s[b].name);

}

}

}

4. write a program

ANS:

#include <stdio.h>

#define MAX\_SIZE 100

int main()

{

int arr[MAX\_SIZE];

int i, max, min, size;

printf("Enter size of the array: ");

scanf("%d", &size);

printf("Enter elements in the array: \n");

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

{

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

}

max = arr[0];

min = arr[0];

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

{

if(arr[i] > max)

{

max = arr[i];

}

if(arr[i] < min)

{

min = arr[i];

}

}

printf("Maximum element = %d\n", max);

printf("Minimum element = %d", min);

return 0;

}

3(b).

ANS:

#include<stdio.h>

#include<conio.h>

void main()

{

float f1,f2,f;

printf("\n\tEnter first floating point value : ");

scanf("%f",&f1);

printf("\n\tEnter second floating point value : ");

scanf("%f",&f2);

f=f1+f2;

printf("\n\n\tAddition of two floating point value : %f",f);

getch();

}