**Assignment -3**

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Ques- Simple Calculator is a C language-based application used for  
performing all the simple arithmetic operations like addition,  
multiplication, division, and subtraction. The application can be  
made using basic knowledge of C like if-else statements, loops,  
etc.  
The functionalities of the application are mentioned below:  
1. Addition  
2. Subtraction  
3. Multiplication  
4. Division  
5. Logarithmic values  
6. Square roots

Sol:

#include <stdio.h>

#include <math.h>

int main() {

int choice,i,digit,num2;

float num[20]={0},sum,sub,mult,div,num1,num3;

printf("\t# To add number's enter 1\n");

printf("\t# To subtract number's enter 2\n");

printf("\t# To multiply number's enter 3\n");

printf("\t# To divide number's enter 4\n");

printf("\t# To calculate logarithmic value enter 5\n");

printf("\t# To calculate square of number's enter 6\n");

printf("\nEnter your choice :");

scanf("%d",&choice);

if (choice!=4 && choice<=6 && choice>=1) {

printf("\nEnter on how many digit's you want to perform above mentioned operation :");

scanf("%d",&digit);

for(i=0;i<=digit-1;i=i+1) {

printf("Enter digit-%d :",i+1);

scanf("%f",&num[i]);

}

}

if (choice>=1 && choice<=6) {

if (choice==1) {

for(i=0,sum=0;i<=digit-1;i=i+1) {

sum=sum+num[i];

}

printf("Addition of number's is %f\n",sum);

}

else if (choice==2) {

for(i=0,sub=0;i<=digit-1;i=i+1) {

sub=sub-num[i];

}

printf("Subtraction of number's is %f\n",sub);

}

else if (choice==3) {

for(i=0,mult=1,num;i<=digit-1;i=i+1) {

mult=mult\*num[i];

}

printf("Multiplication of number's is %f",mult);

}

else if (choice==4) {

printf("Enter a number to be divided :");

scanf("%f",&num1);

printf("Enter how many time's you want to divide %.2f :",num1);

scanf("%d",&num2);

for(i=0,div=1;i<=num2-1;i=i+1) {

printf("Enter divisor-%d :",i+1);

scanf("%f",&num3);

div=num1/num3;

printf("Divison = %f\n",div);

}

}

else if (choice==5) {

for(i=0;i<=digit-1;i=i+1) {

printf("Logarithmic value of %.2f is %f\n",num[i],log(num[i]));

}

}

else if (choice==6) {

for(i=0;i<=digit-1;i=i+1) {

printf("Square of %.2f is %f\n",num[i],num[i]\*num[i]);

}

}

}

else {

printf("# INVALID CHOICE");

}

return 0;

}