C++ Programming language.  
  
first program to write,  
  
meaning of header file  
standard template library, what if we don’t write  
main function  
endl.  
  
  
flow chart of simple interest  
  
  
data types;  
  
int float bool char  
  
initialization of bucket, int a =10;  
  
difference between initialization and assignment;  
  
int a;🡪 initialization;  
a=10;🡪 assignment;  
  
bucket name creation--- character or underscore, a,\_a,  
12\_a not valid; int a1,a2 and so on correct,   
  
  
Sizes of the data types;  
int 4 bytes (32 bit)   
float “”  
char 1 byte  
bool 1 byte  
double 8 bytes  
  
5=101 in last points stored  
in float not assigned then it will contain the garbage value.  
character ASCII value is stored  
using 8 bits 256ncharacter can be represented  
0,1=🡺 2 to the power 8;  
  
  
Ranges of datatypes;  
2 to power 2 -1 is thye max magnitude  
and 2 to power of 2 is total values.  
  
Negative number storation, MSB-most significant bit, Least significant bit.  
N bits then minus 2 to power n -1  
  
how stored, then 2’s compliment.  
5 === -5 (2’s compliment) multiply by -1,   
  
2’s compliment=1’s compliment +1  
  
  
5----🡪0101  
1’s compliment-> 1010 +1 =1011==== -5 this is 11, so how to differenciate, now sign bit part comes,  
0101 (positive if 0 at starting so,5) 1011( 1 at starting so, -5)  
  
if we want to get the magnitude of negative number then we need to take 2’s compliment again  
  
Range of negative number---  
  
negative -2 to power n-1, 2 to power n-1 and -1(positive)  
  
  
Access modifier  
  
unsigned----will store value [0,2 to power 32 -1]  
signed--- [-2 to power 31, 2 to power 31 minus 1]  
long  
shout   
  
  
while looP

