**Question 1**

**Program code**

#include<iostream>

#include<math.h>

#include<string.h>

using namespace std;

class Conversion

{

private:

int decimal,binary,octal,hexadecimal,i,n,r,len,a[20],j;

char num[20];

public:

void bd()

{

cout<<"Enter any binary number:";

cin>>binary;

decimal=0;

for(i=0;binary!=0;i++)

{

decimal=(binary%10)\*(pow(2,i))+decimal;

binary=binary/10;

}

cout<<"The conversion is "<< decimal<<endl;

}

void od()

{

cout<<"Enter any octal number:";

cin>>octal;

decimal=0;

for(i=0;octal!=0;i++)

{

decimal=(octal%10)\*(pow(8,i))+decimal;

octal=octal/10;

}

cout<<"The conversion is "<< decimal<<endl;

}

void hd()

{

cout<<"Enter a hexadecimal number:";

cin>>num;

len=strlen(num);

hexadecimal=0;

for(i=0;num[i]!='\0';i++)

{

len--;

if(num[i]>='0' && num[i]<='9')

r=num[i]-48;

else if(num[i]>='a' && num[i]<='f')

r=num[i]-87;

else if(num[i]>='A'&& num[i]<='F')

r=num[i]-55;

hexadecimal=hexadecimal+r\*pow(16,len);

}

cout<<"The conversion is "<<hexadecimal<<endl;

}

void db()

{

cout<<"Enter any decimal number:";

cin>>decimal;

for(i=0;decimal!=0;i++)

{

a[i]=decimal%2;

decimal=decimal/2;

}

cout<<"The conversion is";

for(i=i-1;i>=0;i--)

cout<<a[i];

cout<<endl;

}

void dot()

{

cout<<"Enter any decimal number:";

cin>>decimal;

for(i=0;decimal!=0;i++)

{

a[i]=decimal%8;

decimal=decimal/8;

}

cout<<"The conversion is";

for(i=i-1;i>=0;i--)

cout<<a[i];

cout<<endl;

}

void dh()

{

cout<<"Enter any decimal number:";

cin>>decimal;

i=1;

while(decimal!=0)

{

r=decimal%16;

if(r<10)

num[i++]=r+48;

else

num[i++]=r+55;

decimal=decimal/16;

}

cout<<"The conversion is ";

for(j=i;j>0;j--)

cout<<num[j];

cout<<endl;

}

};

int main()

{

Conversion c1;

c1.bd();

c1.od();

c1.hd();

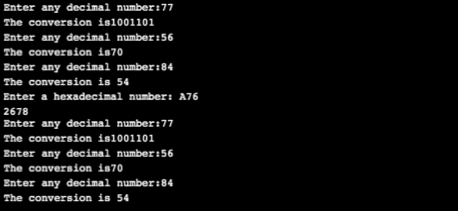
c1.db();

c1.dot();

c1.dh();

}

**Output**

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**Question 2**

**Program Code**

#include<iostream>

#include<string.h>

using namespace std;

class bank

{

public:

int account\_no,display;

float bal,deposit,withdrawl;

char acc\_type[100],name[100];

void getdata()

{

cout<<"Enter account holder name:";

cin>>name;

cout<<"Enter account number:";

cin>>account\_no;

cout<<"Enter type of account:";

cin>>acc\_type;

cout<<"Enter balance of your account:";

cin>>bal;

}

void dep()

{

cout<<"Enter money you want to deposit:";

cin>>deposit;

bal=bal+deposit;

}

void withdraw()

{

cout<<"Enter money you want to withdrawl:";

cin>>withdrawl;

if(withdrawl<=bal)

bal=bal-withdrawl;

else

cout<<"Insuffiecient balance";

}

void disp()

{

cout<<"\nAccount holder name:\n"<<name;

cout<<"\nAccount number:\n"<<account\_no;

cout<<"\nType of account:\n"<<acc\_type;

cout<<"\nBalance:\n"<<bal;

}

};

int main()

{;

bank b;

b.getdata();

int n;

do

{

cout<<"1.Deposit\n"<<"2.Withdrawl\n"<<"3.Display\n";

cout<<"Enter your choice:";

cin>>n;

switch(n)

{

case 1:

b.dep();

break;

case 2:

b.withdraw();

break;

case 3:

b.disp();

break;

default:

cout<<"Invalid choice";

break;

}

}while(n!=3);

}

**Output**

