

# PP ASSIGNMENT

```
#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')
```

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    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();  
}
```

```
Enter any binary number:100  
The conversion is 4  
Enter any octal number:345  
The conversion is 229  
Enter a hexadecimal number:A76  
The conversion is 2678  
Enter any decimal number:8  
The conversion is1000  
Enter any decimal number:6  
The conversion is6  
Enter any decimal number:99  
The conversion is 63  
  
-----  
Process exited after 16.81 seconds with return value 0  
Press any key to continue . . .
```