



Fundamentals of programming

Assignment Home task 5

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***Q:Write a program to convert decimal into binary.***

***#include <iostream>***

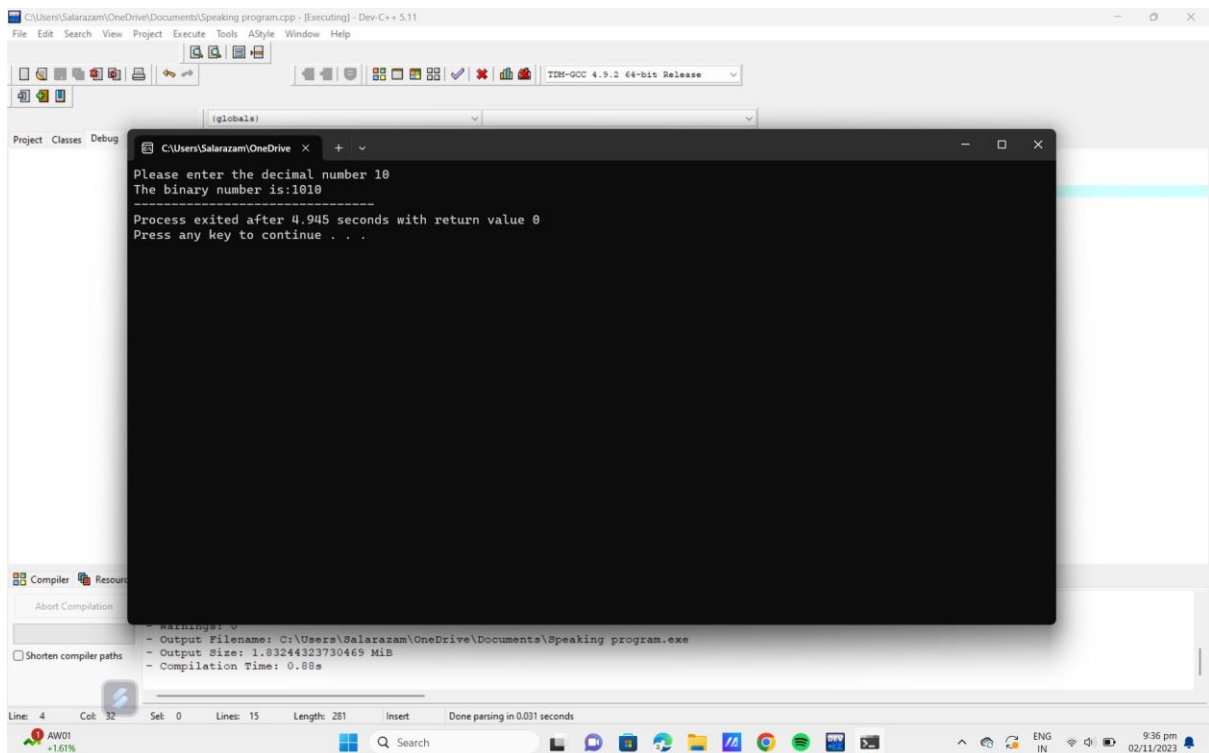
***using namespace std;***

***int main() {***

```

int decimal ,binary=0 , base =1;
cout<<"Please enter the decimal number";
cin>>decimal;
while(decimal>0)
{
binary+=(decimal%2)*base;
decimal/=2;
base*=10;
}
cout<<"The binary number is:"<<binary;
return 0;
}

```



**Q:Write a program to create a diamond.**

```
#include <iostream>  
using namespace std;  
int main(){  
int n,i,j,space;  
cout<<"Please enter the number of rows:";  
cin>>n;  
for(i=1;i<=n;i++){  
for(space=1;space<=n-i;space++){  
cout<<" ";}  
for(j=1;j<=2*i-1;j++){  
cout<<"*";}  
cout<<endl;  
}  
// for lower part of the diamond  
for(i=1;i>=n;i--){  
for(space=1;space<=n-i;space++){  
cout<<" ";}  
for(j=1;j<=2*n-1;j++){  
    cout<<"*";  
}  
cout<<endl;
```

```
}  
return 0;  
}
```

**Q:Write a program to find arithmetic progression of two numbers.**

```
#include <iostream>  
using namespace std;  
int main(){  
int num1,num2,commondifference,numterms;  
cout<<"Enter first number:";  
cin>>num1;  
cout<<"Enter second number:";  
cin>>num2;  
cout<<"Enter common difference:";  
cin>>commondifference;  
cout<<"Enter the number of terms:";  
cin>>numterms;  
int sum=0;  
int currentterm  
for(int i=1;i<=numterms;i++){  
    sum+=numterms;
```

***numterm+=common difference;***

***}***

***cout<<"The sum of AP series is:"<<sum;***

***endl;***

***}***