

ASSIGNMENT-4

AIM:-Write a program to check the parity of a binary number and then change its parity to either even or odd.

```
#include<iostream>
#include<string.h>
using namespace std;
int main()
{
int count=0,option;
string binary_num;
string result="";
cout<<"\nEnter a binary no. of length 7:";
cin>>binary_num;
for (int i = 0; i < 7; i++)
{
if (binary_num[i]=='1')
{
count++;
}
} if (
count%2==0)
{
cout<<"\nEven parity";
}
else
{
cout<<"\nOdd parity";
}
cout<<"\n\nSelect your choice in which parity you want to convert this string:-";
cout<<"\n1.Even Parity\n2.Odd parity";
cout<<"\nEnter your choice:-";
cin>>option;
switch (option)
{
case 1:
if (count%2==0)
{
result = "0"+ binary_num;
}
}
```

```

else
{
result = "1"+ binary_num;
}
break;
case 2:
if (count%2==0)
{
result = "1"+ binary_num;
}
else
{
result = "0"+ binary_num;
}
break;
default:
cout<<"\nInvalid option";
}
cout<<"\n"<<"result= "<<result;
return 0;
}

```

OUTPUT-

```

Enter a binary no. of length 7:1011100

Even parity

Select your choice in which parity you want to convert this string:-
1.Even Parity
2.Odd parity
Enter your choice:-2

result= 11011100
-----
Process exited after 15.68 seconds with return value 0
Press any key to continue . . .

```