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CS27

1. Question

Validate ISBN-13 and ISBN-10 codes.

Source Code

```c
#include <stdio.h>
#include <stdbool.h>

bool validateISBN_13(char ISBN[]){
        int s=0;
        for(int i=0;i<13;i++)
                s+= (ISBN[i]-'0') + 2*(ISBN[i]-'0')*(i%2) ;

        return !(s%10);
}

bool validateISBN_10(char ISBN[]){

        int s=0;
        for(int i=0;i<10;i++)
                s+=(11-i-1)*(ISBN[i]-'0');
        if ( ISBN[9]=='1' && ISBN[10] == '0')
                s+=9;

        return !(s%11);
}

int main(){

        printf("\t\t ISBN VALIDATOR\n");
        printf("\t\t\b****************\n\n");

        printf("1. ISBN-13 validation\n");
        printf("2. ISBN-10 Validation\n");

        int c;

        printf("\nEnter selection : \n");
        scanf("%d",&c);

        char ISBN[15];

        printf("Enter the ISBN : ");
        scanf("%s",ISBN);

        bool isValid;
```

```
        if(c==1)
                isValid=validateISBN_13(ISBN);
        else
                isValid=validateISBN_10(ISBN);


        if(isValid)
                printf("The ISBN is valid.");
        else
                printf("The ISBN is invalid.");

        return 0;
}
```

Output

1

```
        ISBN VALIDATOR
        *****************

1. ISBN-13 validation
2. ISBN-10 Validation

Enter selection :
1
Enter the ISBN : 9781861978769
The ISBN is valid.
```

2.

```
        ISBN VALIDATOR
        *****************

1. ISBN-13 validation
2. ISBN-10 Validation

Enter selection :
1
Enter the ISBN : 9781861978760
The ISBN is invalid
```

3.

```
        ISBN VALIDATOR
          *****************

1. ISBN-13 validation
2. ISBN-10 Validation

Enter selection :
2
Enter the ISBN : 08044295710
The ISBN is valid.
```

4.

```
        ISBN VALIDATOR
          *****************

1. ISBN-13 validation
2. ISBN-10 Validation

Enter selection :
2
Enter the ISBN : 0804429579
The ISBN is invalid.
```