Assignment = 18

String with function in c

//1. write a program to calculate length of string

```
#include <stdio.h>
#include <string.h>
int length(char []);
int main()
{
        char str[20];
        printf("\nEnter String :");
        fgets(str,20,stdin);
        printf("%d",length(str));
        return 0;
}
int length(char str1[])
{
        int i,count=0;
        for(i=0;str1[i];i++);
        i-=1;
        return i;
}
```

//2. write a program to reverse a string

```
#include <stdio.h>
#include <string.h>
int rev(char [],int );
int main()
{
        char str[20];int n;
        printf("\nEnter String :");
        fgets(str,20,stdin);
    n=strlen(str);
        rev(str,n);
        return 0;
}
int rev(char str1[],int n)
{
        int l,i,count=0;
        n--;
        for(i=n-1;i>=0;i--)
        {
```

```
            printf("%c",str1[i]);
    }
}
```

//3. write a program to compare two strings

```
#include <stdio.h>
#include <string.h>
int cmp(char [],char []);
int main()
{
        char str[20],str1[20];int n,k;
        printf("\nEnter ist String :");
        fgets(str,20,stdin);
        printf("\nEnter 2nd String :");
        fgets(str1,20,stdin);
        k=cmp(str,str1);
                printf("%d\n",k);
        return 0;
}
int cmp(char str[],char str1[])
{
        int i,k,l,t;
        l=strlen(str);
        l--;
        k=strlen(str1);
        k--;
        t=l>k?l:k;
        for(i=0;i<=t-1;i++)
        {
                if(str[i]>str1[i])
                return 1;
                else if(str[i]<str1[i])
                return -1;
                else
                {
                        if(i==t-1)
                        return 0;
                }
        }

}
```

//4. write a program to transform string into uppercase

```
#include <stdio.h>
#include <string.h>
int upr(char []);
```

```
int main()
{
	char str[20];int n,k;
	printf("\nEnter String :");
	fgets(str,20,stdin);
	printf("%s",upr(str));
	return 0;
}
int upr(char str1[])
{
	int i,k,l,t;
	l=strlen(str1);
	for(i=0;i<l-1;i++)
	{
		if(str1[i]>=97 && str1[i]<=122)
		{
			str1[i]=str1[i]-32;
		}
	}
	return str1;
}
```

//5. write a program to transform string into lowercase

```
#include <stdio.h>
#include <string.h>
int lwr(char []);
int main()
{
	char str[20];int n,k;
	printf("\nEnter String :");
	fgets(str,20,stdin);
	printf("%s",lwr(str));
	return 0;
}
int lwr(char str1[])
{
	int i,k,l,t;
	l=strlen(str1);
	for(i=0;i<l-1;i++)
	{
		if(str1[i]>=65 && str1[i]<=90)
		{
			str1[i]=str1[i]+32;
		}
	}
	return str1;
}
```

//6. write a program to check weather a given string is alphanumeric string or not (alphanumeric string may stord one digit and one alphabet

```
#include <stdio.h>
#include <string.h>
int alpha(char []);
int main()
{
        char str[20];int n,k;
        while(1)
        {
        printf("\nEnter String :");
        fgets(str,20,stdin);
        k=alpha(str);
        if(k==0)
        printf("\nnot a alphanumeric");
        else
        printf("\alphanumeric");}
        return 0;
}
int alpha(char str1[])
{
        int i,l,count=0,k=0;
        l=strlen(str1);
        for(i=0;i<l-1;i++)
        {
                if(str1[i]>=65 && str1[i]<=90)
                {
                        count++;
                }
                else if(str1[i]>=97 && str1[i]<=122)
                {
                        count++;
                }
                else if(str1[i]>=48 && str1[i]<=55)
                 k++;
        }
        if(count!=0 && k!=0)
        return 1;
        else
        return 0;
}
```

//7. write a program to check weatehr a given string is palindrome or not

```
#include <stdio.h>
#include <string.h>
```

```
int alpha(char [],int);
int main()
{
        char str[20];int k,t;
        while(1)
        {
        printf("\nEnter String :");
        fgets(str,20,stdin);
        k=alpha(str,t);
        if(k==0)
        printf("\nNot A palindrome string\n");
        else
        printf("\npalindrome string\n");
  }
  return 0;
}
int alpha(char x[],int n)
{
        int i,l,count=0;
   n--;
        l=n;
        l-=1;
        for(i=0;i<n/2;i++,l--)
        {
                if(x[i]==x[l])
                {
                 count++;
                }
        }
        if(i==count)
        return 1;
        else
        return 0;
}
```

//8. write a program to count word in a given string

```
#include <stdio.h>
#include <string.h>
int alpha(char []);
int main()
{
        char str[40];int n,k;
        while(1)
        {
        printf("\nEnter String :");
        fgets(str,40,stdin);
        printf("%d\n",strlen(str));
        printf("%d\n",alpha(str));
```

```
  }
}
int alpha(char str1[])
{
        int i,l,count=1;
        l=strlen(str1);
        for(i=0;i<l-1;i++)
        {
            if(str1[i]==32)
            count++;
   }
   return count;
} */
```

// 9. write a program to revers a string like (mysirg education services)then the output will services education mysirg)

```
#include <stdio.h>
#include <string.h>
void rev(char [],int);
int main()
{
        char str1[100];int k;
        printf("Enter string :");
        fgets(str1,100,stdin);
        k=strlen(str1);
        k--;
        rev(str1,k);
        return 0;
}
void rev(char str[],int l)
{
         int i,j,count=-1;
    for(i=l-1;i>=0;i--)
    {
        count ++;
        if(str[i]==' ' || i==0)
        {
                if(i==0)
                {
            for(j=i;j<=i+count;j++)
                    printf("%c",str[j]);
        }
        else
        {
         for(j=i+1;j<=i+count;j++)
                    printf("%c",str[j]);
              }
```

```
                if(str[i]==' ')
                      printf("%c",str[i]);
                   count=-1;
                  }
          }
}
```

10. write a program to find repeated character in a given string.

```
#include <stdio.h>
void repeat(char [],int);
int main()
{
        char str[30];int a;
        printf("Enter string :");
        fgets(str,30,stdin);
        a=strlen(str);
                a--;
        repeat(str,a);
        return 0;
}
void repeat(char str1[],int x)
{
    int i,j,count;
        for(i=0;i<x;i++)
        {
                count=1;
                for(j=i;j<x-1;j++)
                {
                        if(str1[i]==str1[j+1])
                        {
                                count++;
                                str1[j+1]=-1;
                        }
                }
                if(str1[i]!=-1 && count>1)
         {
                printf("%c = %d\n",str1[i],count);
         }
}
}
```