Assignment 17

①
```c
#include <stdio.h>
int main()
{
    char str[40], int i;
    printf("Enter a string\n");
    fgets(str, 40, stdin);
    printf("%s", str);
    printf("\nlength of above string is ");
    for(i=0; str[i]; i++);
    printf("%d", i);
    return 0;
}
```

②
```c
#include <stdio.h>
int main()
{
    char str[50]; int i; char ch; int count=0;
    printf(" Enter String\n");
    fgets(str, 50, stdin);
    printf("%s", str);
    printf("\n Enter a character\n");
    scanf("%c", &ch);
    printf("\n%c", ch);
    for(i=0; str[i]; i++)
    {
        if(str[i]==ch)
            count++;
    }
    printf("\nOccurence of %c in %s is %d times ", ch, str, count);
    return 0;
}
```

③
```c
#include <stdio.h>
int main()
{
    char vowel[10] = { 'a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U'};
    char str[50];  int count = 0;
    printf("Enter a string\n");
    fgets( str, 50, stdin);
    printf("%s", str);
    printf("Number of vowel vowel in above string is ");
    for( int i = 0; str[i]; i++)
    {
        for( int j = 0; j < 10; j++)
        {
            if( str[i] == vowel[j])
            {
                count++;
                break;
            }
        }
    }
    printf("%d", count);
    return 0;
}
```

④
```c
#include <stdio.h>
int main()
{
char str[100];
printf(" Enter a string\n");
fgets( str, 100, stdin);
printf("%s", str);
printf("\nString in Upper Case\n");
for( int i = 0; str[i]; i++)
{
    if (str[i] >= 97 && str[i] <= 122)
        str[i] = str[i] - 32;

}
printf("%s", str);
return 0;
}
```

⑤
```c
#include <stdio.h>
int main()
{
char str[100];
printf("Enter a string\n");
fgets( str, 100, stdin);
printf("%s", str);
printf("\n String in Lower Case\n");
for( int i=0; str[i]; i++)
{
    if ( str[i] >= 65 && str[i] <= 90)
        str[i] = str[i] + 32;
}
printf("%s", str);
return 0;
}
```

```c
(7)  #include<stdio.h>
     int main()
     {
     char str[100];
     int i,count1=0,count2=0,count3=6;
     printf("Enter a string\n");
     fgets(str,100,stdin);
     printf('\%.5",str);
     for(i=0; str[i]; i++)
     {
        if(str[i]==' ')
            continue;
     if(str[i]>='A' && str[i]<='z' || str[i]>='a' && str[i]<='b')
            count1++;

     else if(str[i]>='0' && str[i]<='9')
            count2++;

     else
            count3++;

     }

     }
```

⑧
```c
#include <stdio.h>
int main()
{
int i;
char str[50], s[50];
printf("Enter a string\n");
fgets(str, 50, stdin);
printf("%.s", str);
printf("string gets copied\n");
for(i=0; str[i]; i++)
{
s[i] = str[i];
}

printf("%.s ", s);
return 0;
}
```

⑩
```c
#include <stdio.h>
int main()
{
int i, count;
char str[50], s[50];
printf("Enter a string\n");
fgets(str, 50, stdin);
printf("%.s", str);
print printf("\n");
for(i=0; str[i]; i++)
{
count = 1;
```

```c
if (str[i] == ' ');
    continue;
for (j = i-1 ; j >= 0 ; j--)
{
    if (str[j] == str[i] || str[i] == str[j]+32 || str[i] == str[j]-32)
        break;
}
if ( j >= 0)
    continue;
for ( j = i+1; str[j] ; j++)
{
    if (str[j] = str[i] || str[i] == str[j]+32 || str[i] == str[j]-32)
        count++;
}
printf(" %c repeated is %d times in a string", str[i], count);

}
return 0;
}
```