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	Date: 4/6/21	Week Number: 5

1	1)Write functions to a) Reverse a string. b) Check for equality of strings.
	Program:

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

void palin(char*);

int main()
{
    char s[100];
    printf("Enter a string: ");
    scanf("%s",s);
    palin(s);
    return 0;
}
```

```c
void palin(char s[100])
{
    int length = strlen(s);
    int j = length - 1;
    char rev[100];
    for (int i = 0; i < length; i++)
    {
        rev[i] = s[j];
        j--;
    }
    printf("Reversed string: %s\n",rev);
    int check=1;
    for(int i=0;i<length;i++)
    {
        if(s[i]!=rev[i])
        {
            printf("String is not a palindrome");
            check=0;
            break;
        }
    }
    if(check==1)
        printf("String is a palindrome");
}
```

Output Screenshot:

```
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>a
Enter a string: abcba
Reversed string: abcba
String is a palindrome
```

2	Write function to find all occurrences of a character in a string and use this function to replace all occurences of a character by specific character.
	Program:

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

void replace(char*,char,char);

int main()
{
    char s[100];
    char ch1,ch2;
    printf("Enter a string: ");
    scanf("%s",s);
    printf("Enter a characters: ");
    scanf("%c",&ch1);
    scanf("%c %c",&ch1,&ch2);
    replace(s,ch1,ch2);
    return 0;
}

void replace(char* s, char ch, char r)
{
    int length = strlen(s);
    char rep[100];
    for (int i = 0; i < length; i++)
    {
        if(s[i]!=ch)
            rep[i] = s[i];
        else
            rep[i]=r;
    }
    printf("%s",rep);
}
```

Output Screenshot:

```
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>gcc P2.c

C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>a
Enter a string: abcde
Enter a characters: d r
abcre
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>
```

3	Write a function to remove all repeated characters from a given string and display the string without duplicate characters.
	Program:

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

void rem(char*);

int main()
{
    char s[100];
    char ch1,ch2;
    printf("Enter a string: ");
    scanf("%s",s);
    rem(s);
    return 0;
}

```

```c
void rem(char* s)
{
    int length = strlen(s);
    char rep[100];
    rep[0]=s[0];
    int count=1;
    for (int i = 1; i < length; i++)
    {
        for (int j = 0; j < i;j++)
        {
            if(s[i]==s[j])
            {
                break;
            }
            else if(j==(i-1))
            {
                rep[count]=s[i];
                count+=1;
            }
        }
    }
    printf("%s",rep);
}

```

Output Screenshot:

```
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>gcc P3.c

C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>a
Enter a string: programming
progamin
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>
```

4	Write function to Concatenate two strings and use this to concatenate n (i.e, say 2) strings.
	Program:

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

void concat(char*,char*,int);

int main()
{
    char s[100],s2[100];
    int n;
    printf("Enter a string: ");
    scanf("%s",s);
    printf("Enter a string: ");
    scanf("%s",s2);
    printf("Enter n: ");
    scanf("%d",&n);
    concat(s,s2,n);
    return 0;
}
```

```c

void concat(char* s, char* s2, int n)
{
    int length = strlen(s2);
    char result[1000];
    int count=0;
    for (int i = 0; i < strlen(s); i++)
    {
        result[count]=s[i];
        count+=1;
    }
    for (int i = 0; i < n; i++)
    {
        for (int j = 0; j < length;j++)
        {
            result[count]=s2[j];
            count+=1;
        }
    }
    printf("%s",result);
}

```

Output Screenshot:

```
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>gcc P4.c

C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>a
Enter a string: hello
Enter a string: world
Enter n: 3
helloworldworldworld
C:\Users\Renita Kurian\Documents\Academic\Second Semester\C Lab\W5>
```