Question 1: Write a program to input data into an array (Take value from user at runtime
for inserting into array using loop) and find out the maximum value and minimum value
from array through pointer?

```cpp
#include<iostream>
using namespace std;
int main ()
{
    int arr[10], n, i, maxi, mini;
    cout << "Enter the size of the array : ";
    cin >> n;
    cout << "Enter the elements of the array : ";
    for (i = 0; i < n; i++)
        cin >> arr[i];
    maxi = arr[0];
    for (i = 0; i < n; i++)
    {
        if (maxi < arr[i])
            maxi= arr[i];
    }
    mini = arr[0];
    for (i = 0; i < n; i++)
    {
        if (mini > arr[i])
            mini = arr[i];
    }
    cout << "Largest element :  " << maxi;
    cout << "Smallest element :  " << mini;
    return 0;
}
```

Output:

```
Enter the size of the array : 6
Enter the elements of the array : 22
32
43
12
34
56
Largest element :  56
 Smallest element :  12

...Program finished with exit code 0
Press ENTER to exit console.
```

Q No.2: Write a program to convert Fahrenheit to Celsius degrees by passing pointers as arguments to the function? (Take value from user at runtime)

```cpp
#include <iostream>

using namespace std;

int main()
{
    float f, *c;
    void frecel(float*);
    c=&f;
    cout<<"Enter temperature in Fahrenheit :";
    cin>>f;
    frecel(&f);
    cout<<" Enter temperature in Celsius :"<<*c<<endl;


    return 0;
}

void frecel(float *x)
{
    *x= (*x-32)*5.0/9.0;
}
```

output:

```
Enter temperature in Fahrenheit :286
 temperature in Celsius is equal to :141.111
[1] + Done                       "/usr/bin/gdb" -
ne.In.fixi5923.3n9" 1>"/tmp/Microsoft-MIEngine-Ou
```

Q No.3: Write a program to convert kilogram into grams by passing pointers as arguments to the function?

```cpp
#include<iostream>
#include<math.h>

using namespace std;
int main()
{
    float kilogram;
    cout<<"please enter value in kilogram : ";
    cin>>kilogram;

    float gram= kilogram*1000;
    cout<<"The value of mass in gram =  "<< gram;


    return 0;

}
```

Output:

```
please enter value in kilogram : 12
The value of mass in gram =  12000[1] + Done
{DbgTerm} 0<"/tmp/Microsoft-MIEngine-In-dt7dg0
```

Q No.4: Write a program to find out the length of string by using pointers?

```cpp
#include <iostream>
#define MAX_SIZE 100 // Maximum size of the string
using namespace std;

int main() {

    char text[MAX_SIZE];
    char * str = text;
    int count = 0;

    // Inputtin string from user
    cout<<"Enter any string: ";
    cin>>text;

    // Iterating though last element of the string
    while(*(str++) != '\0') count++;

    cout<<"Length of "<<text<<" is "<<count;

    return 0;
}
```

Output:

```
Enter any string: najamaliabbass
Length of najamaliabbass is 14[1] + Done
Term} 0<"/tmp/Microsoft-MIEngine-In-qej0g61
```

Q No.6: Write a program to combine two strings by using pointers?

```cpp
#include <iostream>
#define MAX_SIZE 100
using namespace std;

int main() {
    char strg1[MAX_SIZE], strg2[MAX_SIZE];
    char * s1 = strg1;
    char * s2 = strg2;

    cout<<"Enter first string: ";
    cin>>strg1;
    cout<<"Enter second string: ";
    cin>>strg2;

    while(*(++s1));

    while(*(s1++) = *(s2++));

    cout<<"Concatenated string:"<<strg1;
    return 0;
}

```

Output:

```
Enter first string: Najam
Enter second string: Abbas
Concatenated string:NajamAbbas[1] + Done
Term} 0<"/tmp/Microsoft-MIEngine-In-75s2olw6.aga
```

Q No.5: Write a program to copy one string to another string by using pointers?

```cpp
#include <iostream>
#define MAX_SIZE 100
using namespace std;

int main() {

    char text1[MAX_SIZE], text2[MAX_SIZE];
    char * str1 = text1;
    char * str2 = text2;

    cout<<"Enter any string: "<<endl;
    cin>>text1;

    while(*(str2++) = *(str1++));

    cout<<"First string: "<<text1<<endl;;
    cout<<"Second string: "<<text2<<endl;

    return 0;
}
```

Output:

```
NAJAM
First string: NAJAM
Second string: NAJAM
[1] + Done                       "/usr/bin/gdb"
ne-In-axcqpebi.r7y" 1>"/tmp/Microsoft-MIEngine-
```