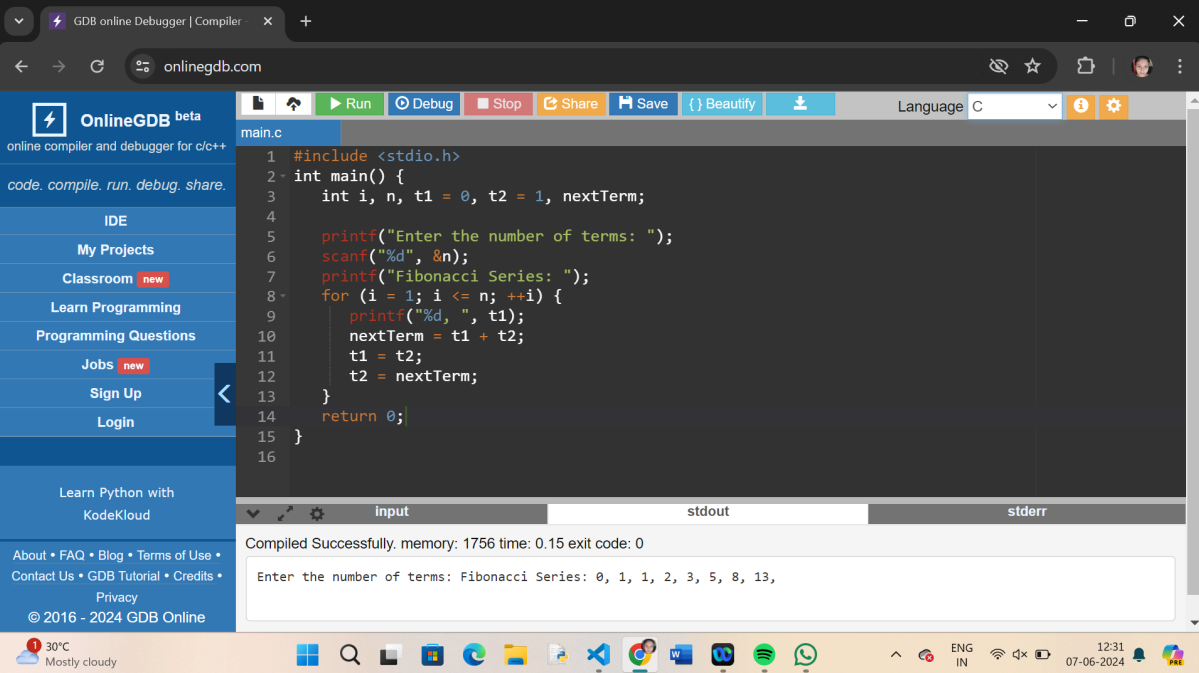


1. FIBONACCI SERIES

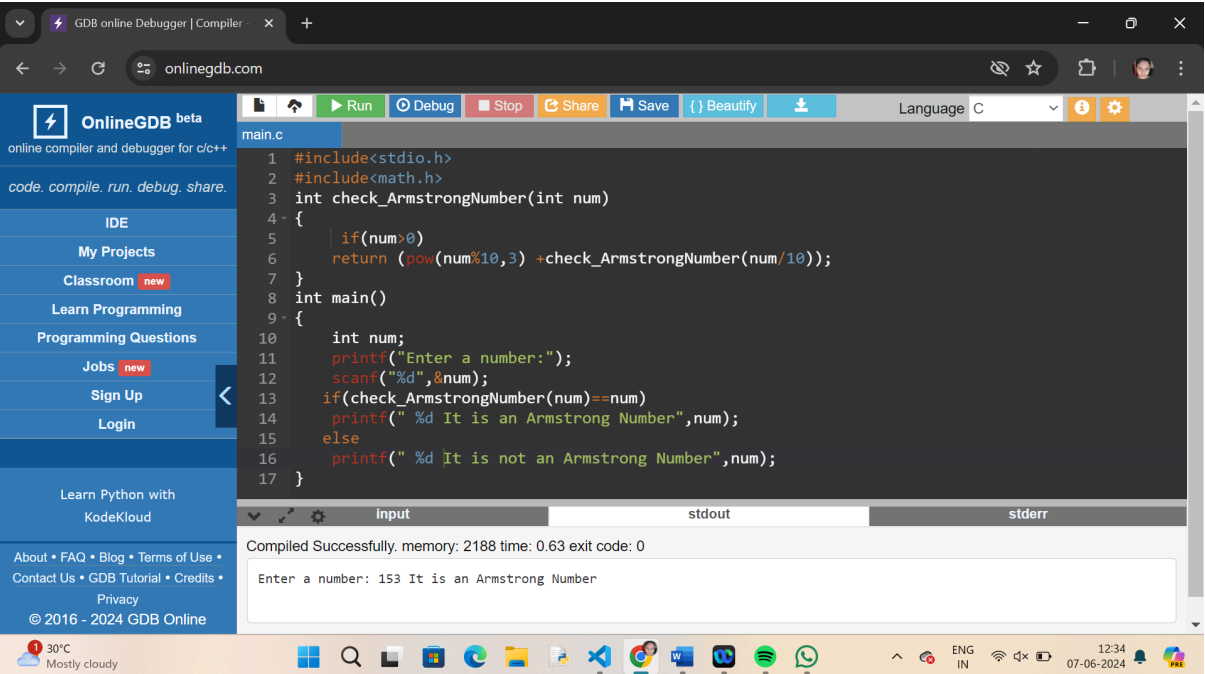


The screenshot shows the OnlineGDB interface with a C program for generating the Fibonacci series. The code is as follows:

```
1 #include <stdio.h>
2 int main() {
3     int i, n, t1 = 0, t2 = 1, nextTerm;
4
5     printf("Enter the number of terms: ");
6     scanf("%d", &n);
7     printf("Fibonacci Series: ");
8     for (i = 1; i <= n; ++i) {
9         printf("%d, ", t1);
10        nextTerm = t1 + t2;
11        t1 = t2;
12        t2 = nextTerm;
13    }
14    return 0;
15 }
```

The output shows the program compiled successfully and the user inputting 10 terms, resulting in the Fibonacci series: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34.

2. ARMSTRONG NUMBER



The screenshot shows the OnlineGDB interface with a C program for checking Armstrong numbers. The code is as follows:

```
1 #include<stdio.h>
2 #include<math.h>
3 int check_ArmstrongNumber(int num)
4 {
5     if(num>0)
6         return (pow(num%10,3) +check_ArmstrongNumber(num/10));
7 }
8 int main()
9 {
10    int num;
11    printf("Enter a number:");
12    scanf("%d",&num);
13    if(check_ArmstrongNumber(num)==num)
14        printf(" %d It is an Armstrong Number",num);
15    else
16        printf(" %d It is not an Armstrong Number",num);
17 }
```

The output shows the program compiled successfully and the user inputting 153, resulting in the output: 153 It is an Armstrong Number.

3. GCD OF TWO NUMBERS

The screenshot shows the OnlineGDB web interface. On the left is a sidebar with navigation links: IDE, My Projects, Classroom (marked 'new'), Learn Programming, Programming Questions, Jobs (marked 'new'), Sign Up, and Login. Below these are links for 'Learn Python with KodeKloud', 'About', 'FAQ', 'Blog', 'Terms of Use', 'Contact Us', 'GDB Tutorial', 'Credits', and 'Privacy'. The main area displays a C program in a dark-themed editor. The code defines a function `gcd` that takes two integers `a` and `b` and returns their greatest common divisor using the Euclidean algorithm. The `main` function prompts the user to enter two numbers and prints the result. Below the editor, the 'input' tab shows the user's input: 'Enter two numbers: GCD of 15 and 10 is 5'. The 'stdout' tab shows the program's output: 'GCD of 15 and 10 is 5'. The 'stderr' tab is empty. At the bottom, a status bar indicates 'Compiled Successfully. memory: 1860 time: 0.17 exit code: 0'. The browser's address bar shows 'onlinegdb.com'.

```
1 #include <stdio.h>
2 int gcd(int a, int b) {
3     if (b == 0)
4         return a;
5     else
6         return gcd(b, a % b);
7 }
8 int main() {
9     int num1, num2;
10    printf("Enter two numbers: ");
11    scanf("%d %d", &num1, &num2);
12    printf("GCD of %d and %d is %d\n", num1, num2, gcd(num1,
13    num2));
14    return 0;
15 }
```

input: Enter two numbers: GCD of 15 and 10 is 5
stdout: GCD of 15 and 10 is 5
stderr:

Compiled Successfully. memory: 1860 time: 0.17 exit code: 0

4. LARGEST NUMBER IN AN ARRAY

The screenshot shows the OnlineGDB web interface with a C program for finding the largest number in an array. The code in the editor defines a `main` function that prompts the user to enter the number of elements (1 to 100). It then reads the elements into an array `arr` and finds the maximum value by iterating through the array. The output shows the largest element is 2.00. The status bar indicates 'Compiled Successfully. memory: 1864 time: 0 exit code: 0'. The browser's address bar shows 'onlinegdb.com'.

```
1 #include <stdio.h>
2 int main() {
3     int n;
4     double arr[100];
5     printf("Enter the number of elements (1 to 100): ");
6     scanf("%d", &n);
7     if (n < 1 || n > 100) {
8         printf("Invalid number of elements.\n");
9         return 1;
10    }
11    printf("Enter %d elements: \n", n);
12    for (int i = 0; i < n; ++i) {
13        scanf("%lf", &arr[i]);
14    }
15    for (int i = 1; i < n; ++i) {
16        if (arr[0] < arr[i]) {
17            arr[0] = arr[i];
18        }
19    }
20    printf("Largest element = %.2lf\n", arr[0]);
21    return 0;
22 }
```

input: Enter the number of elements (1 to 100): Enter 1 elements:
stdout: Largest element = 2.00
stderr:

Compiled Successfully. memory: 1864 time: 0 exit code: 0

5. FACTORIAL OF A NUMBER USING RECTURSION

The screenshot shows the OnlineGDB interface with a C program for calculating factorial. The code is as follows:

```
1 #include<stdio.h>
2 int fact(int n)
3 {
4     if (n==1)
5         return 1;
6     else
7         return(fact(n-1)*n);
8 }
9 int main()
10 {
11     int n;
12     scanf("%d",&n);
13     printf("%d\n", fact(n));
14     return 0;
15 }
```

The output shows the input 5040 and the message "Compiled Successfully. memory: 1848 time: 0.17 exit code: 0".

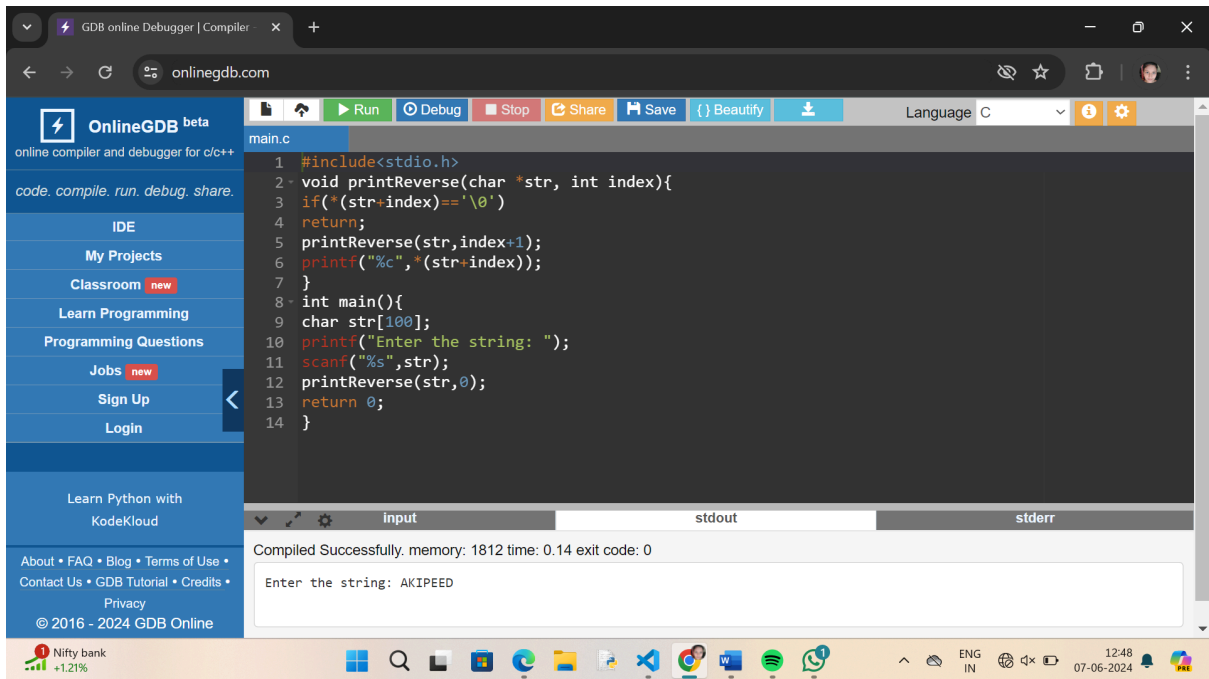
6. COPY STRING TO ANOTHER USING RECURSION

The screenshot shows the OnlineGDB interface with a C program for copying a string using recursion. The code is as follows:

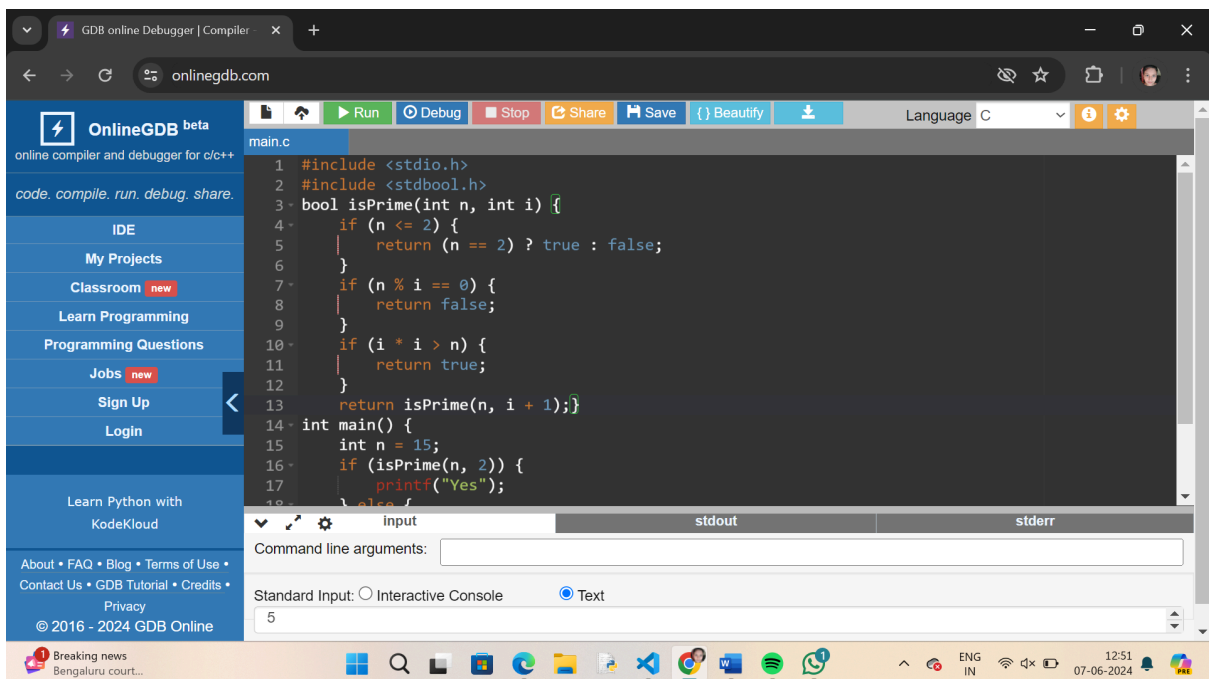
```
1 #include<stdio.h>
2 void copyString(char *source, char *destination){
3     if(*source=='\0')
4         return;
5     *destination = *source;
6     copyString(source+1,destination+1);
7 }
8 int main(){
9     char source[100],destination[100];
10    printf("Enter the string: ");
11    scanf("%s",source);
12    copyString(source,destination);
13    printf("Copied string: %s\n",destination);
14    return 0;
15 }
```

The output shows the input "Enter the string: Copied string: DEEPIKA" and the message "Compiled Successfully. memory: 1820 time: 0.28 exit code: 0".

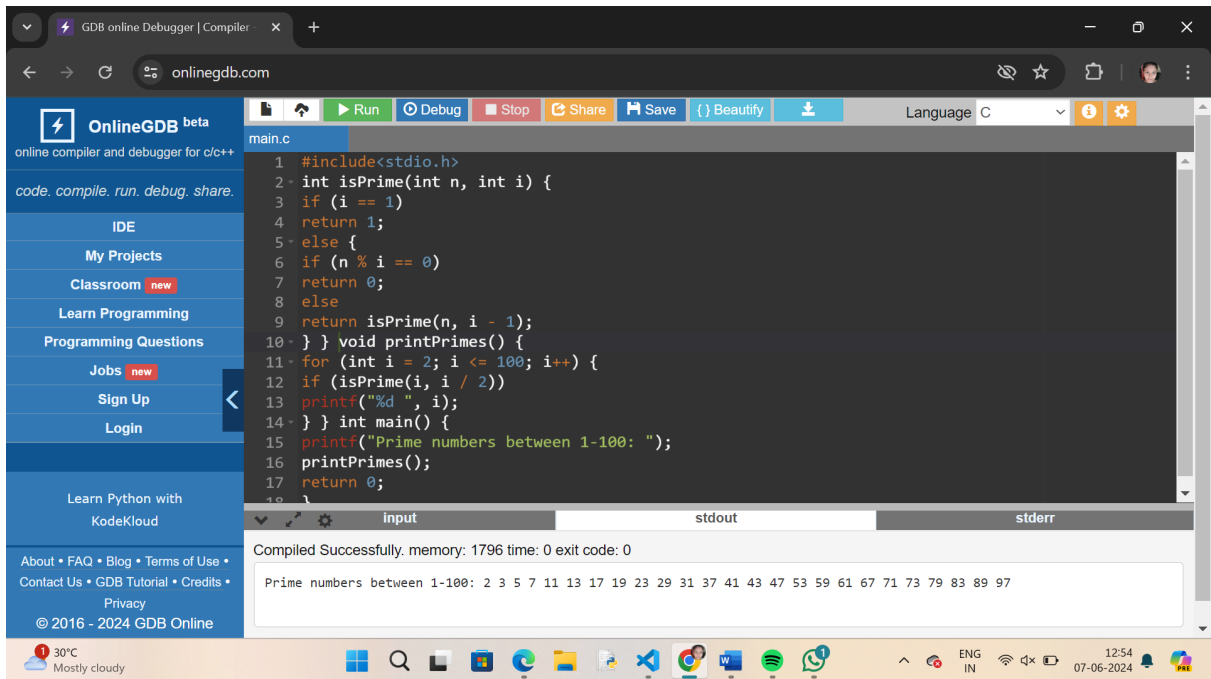
7. REVERSE A STRING USING RECURSION



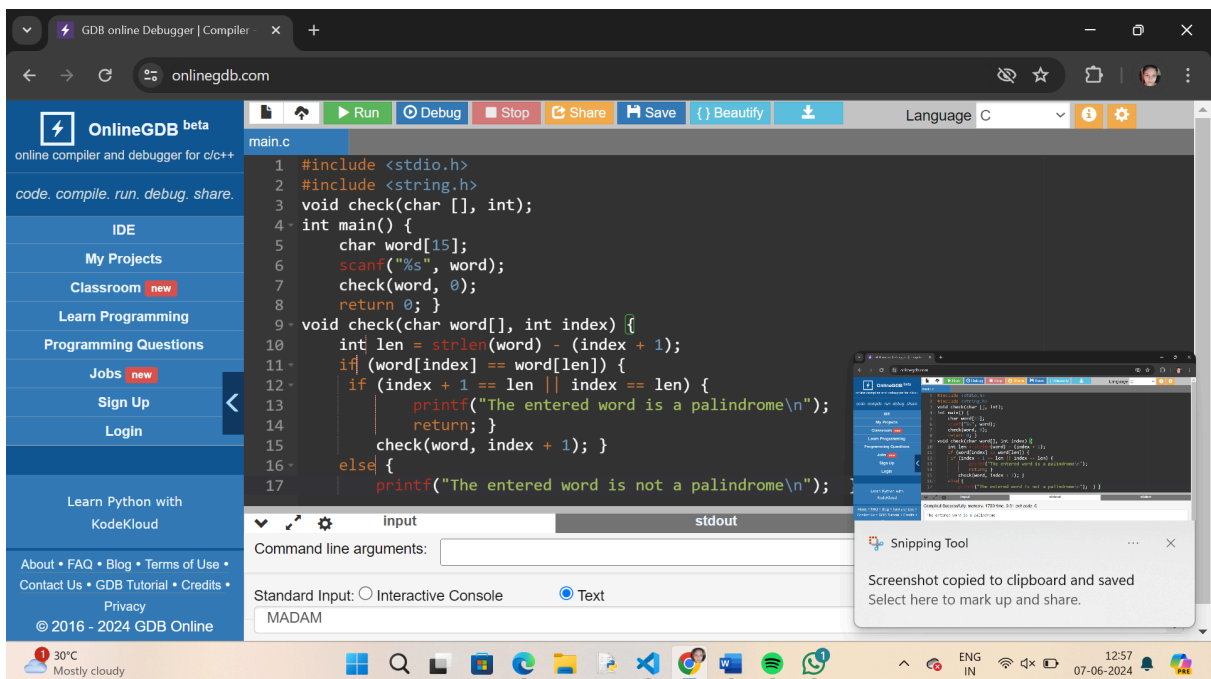
8. PRIME NUMBER OR NOT



9. PRIME NUMBERS FROM 1-100



10. STRING IS PALINDROME OR NOT



The image shows a web browser window with the OnlineGDB online compiler. The browser's address bar shows 'onlinegdb.com'. The OnlineGDB interface has a blue sidebar on the left with navigation links: 'IDE', 'My Projects', 'Classroom' (with a 'new' badge), 'Learn Programming', 'Programming Questions', 'Jobs' (with a 'new' badge), 'Sign Up', 'Login', 'Learn Python with KodeKloud', 'About • FAQ • Blog • Terms of Use • Contact Us • GDB Tutorial • Credits • Privacy', and '© 2016 - 2024 GDB Online'. The main area has a top toolbar with icons for file operations, 'Run', 'Debug', 'Stop', 'Share', 'Save', 'Beautyfy', and a download icon. Below the toolbar is a 'Language C' dropdown and a settings icon. The code editor shows a C program in 'main.c' that checks if a word is a palindrome. The code includes `<stdio.h>` and `<string.h>`, defines a `check` function, and has a `main` function that reads a word and prints the result. The output window at the bottom shows 'Compiled Successfully. memory: 1888 time: 0.14 exit code: 0' and the program's output: 'The entered word is a palindrome'. The bottom of the image shows a Windows taskbar with various application icons and a system tray with the time '12:57' and date '07-06-2024'.