

Programming Fundamentals with

# C Programming

## Module 02

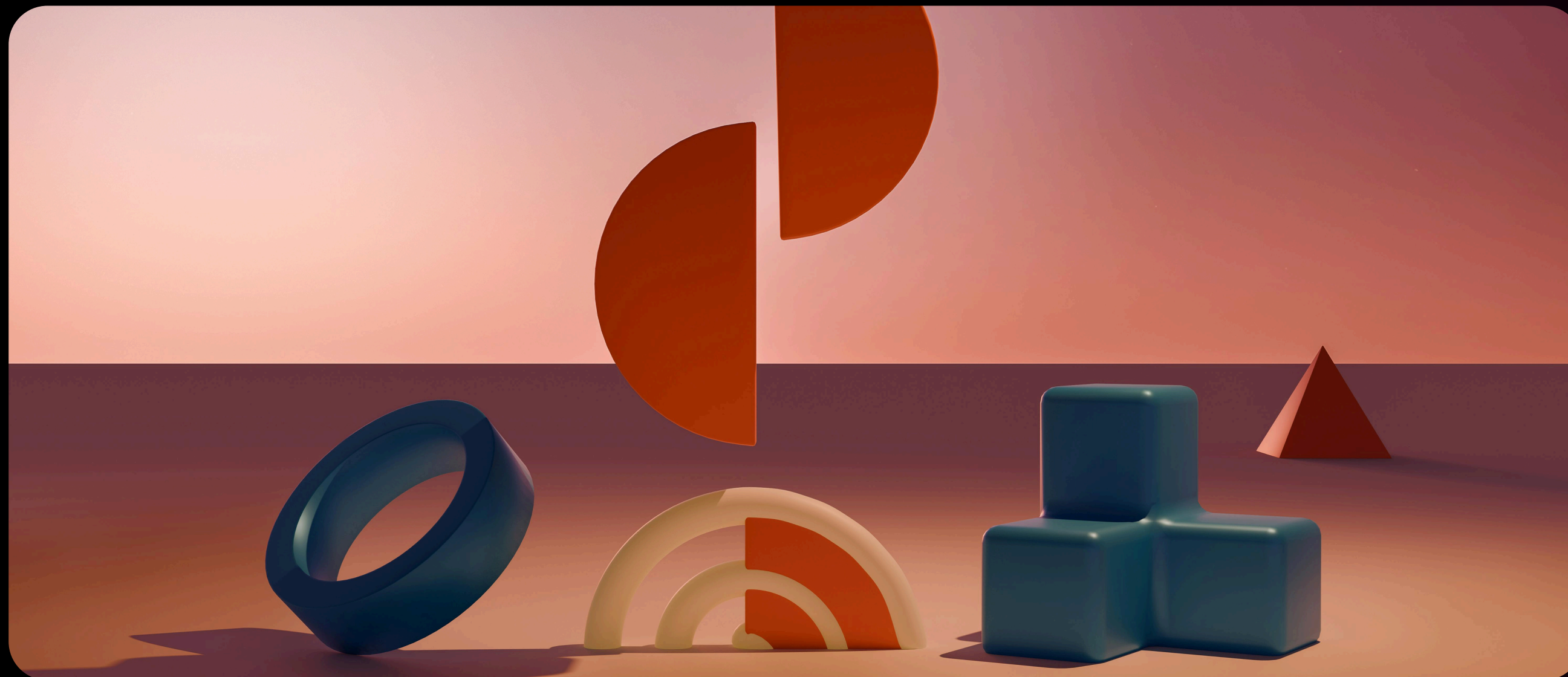


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# Pattern Printing

## Loops based Patterns

Class 12



# ASCII Code

- ASCII stands for American Standard Code for Information Interchange
- It is a character encoding system
- Every character (letters, digits, symbols, control keys) is assigned a numeric value
- These numeric values are called ASCII codes

- A → 65
- a → 97
- 0 → 48
- Space → 32
- Enter (`\n`) → 10





# Square

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \* \*

\* \* \* \*

\* \* \* \*

\* \* \* \*

\* \* \* \* \*

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

5 5 5 5 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

A A A A A

B B B B B

C C C C C

D D D D D

E E E E E

A B C D E

A B C D E

A B C D E

A B C D E

A B C D E

a a a a a

b b b b b

c c c c c

d d d d d

e e e e e

a b c d e

a b c d e

a b c d e

a b c d e

a b c d e

# Triangle - 1

```
*
* *
* * *
* * * *
* * * * *
```

```
*
* *
*  *
*    *
* * * * *
```

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

```
* * * * *
* * * *
* * *
* *
*
```

```
* * * * *
*    *
*  *
* *
*
```

```
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

```
5 5 5 5 5
4 4 4 4
3 3 3
2 2
1
```

# Triangle - 2

```

          *
        * *
      * * *
    * * * *
  * * * * *

    * * * * *
  * * * * *
* * * * *

          *
        * *
      * * *
    * * * *
  * * * * *
* * * * *
```

```

          1
        1 2
      1 2 3
    1 2 3 4
  1 2 3 4 5

          1
        2 2
      3 3 3
    4 4 4 4
  5 5 5 5 5

    5 5 5 5 5
  4 4 4 4
    3 3 3
      2 2
        1
```

# Hybrid Pattern

Enter a number = 6

```
* * * * *
*       *
*       *
*       *
*       *
*       *
* * * * *
*       *
*       *
*       *
*       *
* * * * *
```

Enter a number = 6

```
* * * * *
* *           * *
*  *         *  *
*    *       *    *
*      *     *      *
*        *  *        *
*          * *          *
*            *            *
*       * * * *
* *           * *
*  *         *  *
*    *       *    *
*      *     *      *
*        *  *        *
*          * *          *
*            *            *
```

Enter a number = 6

```
* * * * *
* *           * *
*  *         *  *
*    *       *    *
*      *     *      *
*        *  *        *
*          * *          *
*            *            *
*       * * * *
* *           * *
*  *         *  *
*    *       *    *
*      *     *      *
*        *  *        *
*          * *          *
*            *            *
```



