

# Python Digital Notes

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# Introduction to Python

## Introduction to Python - Explanation 1

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n-1)

print(factorial(5))
```

## Introduction to Python - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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print(factorial(5))
```

## Introduction to Python - Explanation 3

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```
# Example Python Program
def factorial(n):
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```

# Installation and Setup

## Installation and Setup - Explanation 1

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```

## Installation and Setup - Explanation 2

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```
# Example Python Program
def factorial(n):
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## Installation and Setup - Explanation 3

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```
# Example Python Program
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# Variables and Data Types

## Variables and Data Types - Explanation 1

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## Variables and Data Types - Explanation 2

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```
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def factorial(n):
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## Variables and Data Types - Explanation 3

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# Example Python Program
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# Operators

## Operators - Explanation 1

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# Example Python Program
def factorial(n):
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## Operators - Explanation 2

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# Example Python Program
def factorial(n):
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## Operators - Explanation 3

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# Conditional Statements

## Conditional Statements - Explanation 1

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## Conditional Statements - Explanation 2

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## Conditional Statements - Explanation 3

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```
# Example Python Program
def factorial(n):
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```

# Loops

## Loops - Explanation 1

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# Example Python Program
def factorial(n):
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        return n * factorial(n-1)

print(factorial(5))
```

## Loops - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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## Loops - Explanation 3

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# Functions

## Functions - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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        return n * factorial(n-1)

print(factorial(5))
```

## Functions - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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print(factorial(5))
```

## Functions - Explanation 3

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# Example Python Program
def factorial(n):
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print(factorial(5))
```



# Strings

## Strings - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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        return n * factorial(n-1)

print(factorial(5))
```

## Strings - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
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## Strings - Explanation 3

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# Lists

## Lists - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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        return n * factorial(n-1)

print(factorial(5))
```

## Lists - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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print(factorial(5))
```

## Lists - Explanation 3

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```
# Example Python Program
def factorial(n):
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```

# Tuples

## Tuples - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n-1)

print(factorial(5))
```

## Tuples - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
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## Tuples - Explanation 3

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# Example Python Program
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# Sets

## Sets - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
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        return n * factorial(n-1)

print(factorial(5))
```

## Sets - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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## Sets - Explanation 3

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# Example Python Program
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# Dictionaries

## Dictionaries - Explanation 1

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# Example Python Program
def factorial(n):
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print(factorial(5))
```

## Dictionaries - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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## Dictionaries - Explanation 3

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# File Handling

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## File Handling - Explanation 2

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# Exception Handling

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## Exception Handling - Explanation 2

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# Example Python Program
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# Object-Oriented Programming

## Object-Oriented Programming - Explanation 1

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```
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```

## Object-Oriented Programming - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
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```

## Object-Oriented Programming - Explanation 3

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# Modules and Packages

## Modules and Packages - Explanation 1

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# NumPy

## NumPy - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
    else:
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print(factorial(5))
```

## NumPy - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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```

## NumPy - Explanation 3

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```
# Example Python Program
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# Pandas

## Pandas - Explanation 1

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# Example Python Program
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```

## Pandas - Explanation 2

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# Example Python Program
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## Pandas - Explanation 3

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# Matplotlib

## Matplotlib - Explanation 1

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def factorial(n):
    if n == 0:
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    else:
        return n * factorial(n-1)

print(factorial(5))
```

## Matplotlib - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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```

## Matplotlib - Explanation 3

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```
# Example Python Program
def factorial(n):
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```

# Tkinter GUI

## Tkinter GUI - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
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    else:
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print(factorial(5))
```

## Tkinter GUI - Explanation 2

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
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    else:
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print(factorial(5))
```

## Tkinter GUI - Explanation 3

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```
# Example Python Program
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# Database Connectivity

## Database Connectivity - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
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    else:
        return n * factorial(n-1)

print(factorial(5))
```

## Database Connectivity - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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print(factorial(5))
```

## Database Connectivity - Explanation 3

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```
# Example Python Program
def factorial(n):
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print(factorial(5))
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# Web Development (Flask)

## Web Development (Flask) - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
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print(factorial(5))
```

## Web Development (Flask) - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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    else:
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print(factorial(5))
```

## Web Development (Flask) - Explanation 3

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```
# Example Python Program
def factorial(n):
    if n == 0:
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print(factorial(5))
```

# Web Development (Django)

## Web Development (Django) - Explanation 1

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```
# Example Python Program
def factorial(n):
    if n == 0:
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print(factorial(5))
```

## Web Development (Django) - Explanation 2

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```
# Example Python Program
def factorial(n):
    if n == 0:
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```

## Web Development (Django) - Explanation 3

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
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print(factorial(5))
```



# Data Science Basics

## Data Science Basics - Explanation 1

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```
# Example Python Program
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    if n == 0:
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```

## Data Science Basics - Explanation 2

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```
# Example Python Program
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    if n == 0:
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```

## Data Science Basics - Explanation 3

Python is a versatile programming language widely used in industry and academics. This section provides detailed explanation of the topic along with syntax, examples, and practical use cases. Students are advised to practice programs regularly.

```
# Example Python Program
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n-1)

print(factorial(5))
```

# Machine Learning Intro

## Machine Learning Intro - Explanation 1

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## Machine Learning Intro - Explanation 2

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# Automation with Python

## Automation with Python - Explanation 1

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# Regular Expressions

## Regular Expressions - Explanation 1

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# Multithreading

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# Networking Basics

## Networking Basics - Explanation 1

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# Project Work and Viva

## Project Work and Viva - Explanation 1

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