



# Introduction to Python

Fun with Coding!

Robogen

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# Workshop Overview

## 6-Day Workshop:

- Day 1: Python Basics
- Day 2: Fun with AI
- Day 3: Prompt Engineering
- Day 4: Robotics Basics
- Day 5: ATL Challenge
- Day 6: Final Project

**Tools:** Google Colab

# What is Python?

- Simple programming language
- Used for games, websites, AI
- Named after Monty Python

## Why Learn Python?

- Easy to read and write
- Used by Google, NASA
- Great for beginners

## How to Use:

- 1 Go to `colab.research.google.com`
- 2 Create new notebook
- 3 Type code in cells
- 4 Run with Shift+Enter

## Note

Works best on Chrome/Firefox

# Printing Messages

```
1 print("Hello, World!")  
2 print("My name is Alice!")
```

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## Activity:

- Print your name
- Print your favorite food

# Variables

```
1 name = "Rahul"  
2 age = 12  
3 print(name, "is", age, "years old")
```

# Variables

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2 age = 12  
3 print(name, "is", age, "years old")
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## Try:

- Store your school name
- Store your class



# Basic Math

```
1  a = 10
2  b = 5
3  print(a + b)  # Addition
4  print(a * b)  # Multiplication
```

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```

**Activity:** Calculate area of rectangle  
(area = length  $\times$  width)

# If-Else Statements

```
1 age = 12
2 if age >= 13:
3     print("Teen")
4 else:
5     print("Kid")
```

# If-Else Statements

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2 if age >= 13:
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```

**Challenge:** Check if number is even or odd

Hint: Use % operator

# Loops

## For Loop:

```
1  for i in range(5):  
2      print("Hello!")
```

## While Loop:

```
1  count = 0  
2  while count < 3:  
3      print(count)  
4      count += 1
```

# Story Generator

```
1 name = input("Enter name: ")
2 animal = input("Enter animal: ")
3 for i in range(3):
4     print(name, "met a", animal)
```

# Story Generator

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## Enhance:

- Add more characters
- Use if-else for different endings

# Recap

## Today We Learned:

- Printing messages
- Variables
- Basic math
- If-else decisions
- Loops (for/while)

Questions?

Ask anything!



# Next Steps

## Before Next Session:

- Try making a simple calculator
- Experiment with more loops

**Next:** Fun with AI - Teachable Machine!