



CODE GENIUS

SCHOOL
COLLABORATION
CLASSES



CODE GENIUS

PYTHON CLASS



We specialize in coding classes for both kids and adults. With over 15 years of teaching experience, Code Genius is committed to guiding you and your team toward becoming confident and capable coding professionals.



www.codingclasspenang.com



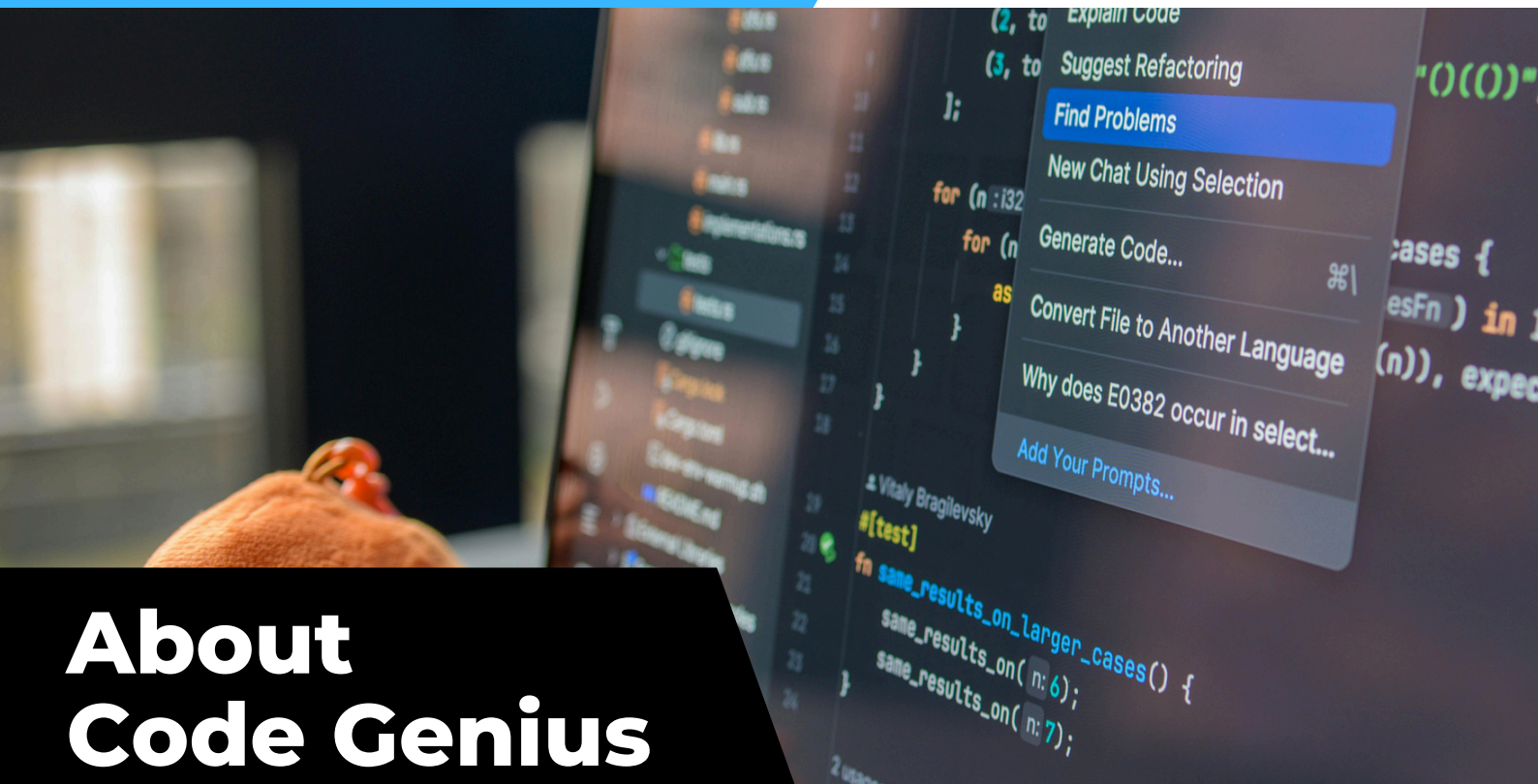
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About Code Genius

Code Genius was developed and established by Justin, a software developer with engineering and coding experience. It's positioned as a training house to help students, undergraduates, and working adults build tech skills with practical projects. Code Genius also collaborates with Home Schools, International Schools and Government school to assist and create a learning framework in software programming

In addition to foundational web technologies such as HTML, CSS, JavaScript, PHP, and MySQL, Code Genius offers advanced training in modern development stacks including Next.js, Express.js, Tailwind CSS, and Python. For learners seeking deeper expertise, we also provide Advanced Python Programming, covering real-world applications such as automation, data handling, backend logic, and performance optimisation.





Why Learn Python

Python is the leading language for artificial intelligence and data science, making it highly valuable in today's technology-driven world. It allows developers to work with machine learning, data analysis, and automation using powerful libraries like Pandas, NumPy, and TensorFlow. This makes Python the preferred choice for building smart systems, analyzing large datasets, and creating modern AI applications.

In addition, Python is extremely useful for automating repetitive and time-consuming tasks. It can be used to rename files, send emails, process data, or even scrape information from websites automatically. This helps individuals and businesses save time, reduce manual effort, and improve overall productivity.

Furthermore, Python enables learners to build real-world projects such as websites, applications, games, and APIs. Using frameworks like Django and Flask, students can quickly turn their ideas into working products. This makes learning more engaging and practical, as learners can see immediate results from what they create.



LESSON PLAN

PYTHON CORE

1st Class: (1 hour)

Variables (Int vs String)
Input syntax
(Small Project)

2nd Class: (1 hour)

Understand List
Creating List
Accessing List
(Small Project)

3rd Class: (1 hour)

Add new items
Delete new items
Merge lists
(small project)

4th Class: (1 hour)

Multi dimension list
(Average project)

5th Class: (1 hour)

Operators
String Literal
(Average Project)

- Combine what you learn into larger project

6th Class: (1 hour)

If Statement
Operator
(Small Project)

7th Class: (1 hour)

If Statement
(Average Project)

- Combine with the Muti dimension list from 4th Class

8th Class: (1 hour)

If Statement
If Else Statement
(Average Project)

- Combine with the 5th Class Operators

9th Class: (1 hour)

for loop Statement
(small project)

10th Class: (1 hour)

Loop through a list of nested LIST
(Average project)

- Use looping and IF Statement

11th Class: (1 hour)

FILE
Read a File
Create a File
(small project)

12th Class: (1 hour)

FILE
Add to File
Create Multiple Files
(Average Project)

- Automate how to create 100 files



LESSON PLAN

PYTHON CORE

13th Class: (1 hour)In

Intro to tuples
Access Tuples
Update Tuples
(Small Project)

14st Class: (1 hour)

Intro to Dictionaries
Access Items
Remove Items
Change items
(small projets)

15th Class: (1 hour)

Functions
Creating functions
Function Arguments
Function * args
(Average Project)

- Combine several chapters into creating a small applicaiton

LESSON PLAN

PYTHON ADVANCE

1st Class: (1HOUR)

OOP Classes/ Objects
Creating Classes
Deleting Classes
Multiple Objects
Simple Project

2nd Class: (1HOUR)

_init_Method
Usage of Self
Private Properties
Method with parameter
Simple Project

3rd Class: (1 Hour)

intro to Numpy
Creating arrays
Array Search
Array Sort
Array Filter
Small project

4th Class: (1 Hour)

Intro to Matplotlib
Pyplot
Plotting graph
Line
Small Project

5th Class: (1 Hour)

Histogram
Pie Chart
Small Project

5th Class: (1 Hour)

MySQL + WAMP
Create Database
Datasets in MySQL
Simple Project

6th Class: (1 Hour)

Inserting Data to mysql
Reading Data from mysql
Deleting Data from mysql
Small Project

7th Class: (1 Hour)

Installing Flask
What is Flask
Create simple App
Front End with Chatgpt

8th Class: (1 Hour)

Flask with XAMPP
CRUD
Create
Delete
Edit
Update

