

1. Python – Basic CRUD Example (Dictionary)

Simple CRUD with dictionary

```
students = {}
```

Create

```
students["101"] = {"name": "Alice", "marks": 85}
```

Read

```
print(students["101"])
```

Update

```
students["101"]["marks"] = 90
```

Delete

```
del students["101"]
```

♦ 2. Java – Class and Object Example

```
public class Student {
```

```
    String name;
```

```
    int marks;
```

```
    Student(String n, int m) {
```

```
        name = n;
```

```
        marks = m;
```

```
    }
```

```
    void display() {
```

```
        System.out.println(name + " scored " + marks);
```

```
    }
```

```
    public static void main(String[] args) {
```

```
        Student s1 = new Student("Bob", 80);
```

```
        s1.display();
```

```
    }
```

```
}
```

♦ 3. HTML + CSS + JS – Simple Page

HTML:

```
<!DOCTYPE html>
<html>
<head>
  <title>My Web Page</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>
  <h1 id="greet">Hello!</h1>
  <button onclick="changeText()">Click Me</button>
  <script src="script.js"></script>
</body>
</html>
```

CSS (style.css):

```
body {
  font-family: Arial;
  background-color: #f0f0f0;
  text-align: center;
}
```

JavaScript (script.js):

```
function changeText() {
  document.getElementById("greet").innerText = "Welcome to Smart Internz!";
}
```

♦ 4. Node.js + Express – Basic API

```
const express = require('express');
const app = express();
app.use(express.json());
```

```
let students = [];
```

```
app.post('/students', (req, res) => {
```

```
    students.push(req.body);
    res.send("Student added");
  });

app.get('/students', (req, res) => {
  res.json(students);
});

app.listen(3000, () => {
  console.log("Server running on port 3000");
});
```

♦ 5. MongoDB (Mongoose) – Schema Example

```
const mongoose = require('mongoose');

const studentSchema = new mongoose.Schema({
  name: String,
  marks: Number
});

const Student = mongoose.model('Student', studentSchema);
```

♦ 6. Python – Basic ML Example (Scikit-Learn)

```
from sklearn.linear_model import LinearRegression
import numpy as np

X = np.array([[1], [2], [3]])
y = np.array([2, 4, 6])

model = LinearRegression()
model.fit(X, y)

print(model.predict([[4]])) # Output: [8.]
```

♦ 7. Git Commands (Terminal)

```
git init
git add .
git commit -m "Initial commit"
git remote add origin https://github.com/username/repo.git
git push -u origin main
```