3.1

from fastapi import FastAPI, HTTPException

from pydantic import BaseModel

from typing import List

app = FastAPI()

# In-memory database for student records

db = []

# Pydantic model for Student

class Student(BaseModel):

id: int

name: str

age: int

gender: str

email: str

phone: str

gpa: float

image: str

@app.get("/students/", response\_model=List[Student])

def get\_all\_students():

    return db

3.2

**Step 1: flutter create my\_app\_for\_student**

**Step 2: Create lib/main.dart**

import 'package:flutter/material.dart';

import 'package:http/http.dart' as http;

import 'dart:convert';

Future<Student> fetchStudent() async {

final response = await http.get(Uri.parse('https://freetestapi.com/api/v1/students'));

if (response.statusCode == 200) {

final jsonData = jsonDecode(response.body);

return Student.fromJson(jsonData);

} else {

throw Exception('Failed to load student data');

}

}

class Student {

final int id;

final String name;

final int age;

final String gender;

final String email;

final String phone;

final double gpa;

final String image;

Student({

required this.id,

required this.name,

required this.age,

required this.gender,

required this.email,

required this.phone,

required this.gpa,

required this.image,

});

factory Student.fromJson(Map<String, dynamic> json) {

return Student(

id: json['id'],

name: json['name'],

age: json['age'],

gender: json['gender'],

email: json['email'],

phone: json['phone'],

gpa: json['gpa'],

image: json['image'],

);

}

}

void main() {

runApp(MyApp());

}

class MyApp extends StatelessWidget {

@override

Widget build(BuildContext context) {

return MaterialApp(

title: 'Student API App',

theme: ThemeData(primarySwatch: Colors.blue),

home: Scaffold(

appBar: AppBar(title: Text('Student API App')),

body: FutureBuilder<Student>(

future: fetchStudent(),

builder: (context, snapshot) {

if (snapshot.connectionState == ConnectionState.waiting) {

return Center(child: CircularProgressIndicator());

} else if (snapshot.hasError) {

return Center(child: Text('Error: ${snapshot.error}'));

} else if (snapshot.hasData) {

final student = snapshot.data!;

return Center(child: Text('Student Name: ${student.name}'));

} else {

return Center(child: Text('No data available'));

}

},

),

),

);

}

}

**Step3: Run app using flutter run**