



Bharatiya Vidya Bhavan's
SARDAR PATEL INSTITUTE OF TECHNOLOGY
(Autonomous Institute Affiliated to University of Mumbai)
Munshi Nagar, Andheri (W), Mumbai – 400 058.
Department of Computer Science and Engineering

Experiment	LAB ESE Submission
Aim	Create an app for booking Doctors Appointment in a hospital consisting of the following field (Name of the Patient, Address, Age, Contact Details, Symptoms, Name of the doctor (Dropdown), Date of visit (Date picker). The Name, Address, Age, Contact must be saved in firebase.
Name	Atharva Vasant Angre
UCID	2024510001
Class	FYMCA
Batch	A
Date of Examination	13.05.2025

Technology used	Flutter, Firebase
Task	<ul style="list-style-type: none">• Make UI to Take user input also properly validate them.• Connect to Firebase.• Make Firebase service to send and receive data.• Make Controller to handle data.
Code with proper label	<pre>main.dart import 'package:flutter/material.dart'; import 'package:firebase_core/firebase_core.dart'; import 'package:get/get.dart'; import 'package:lab_ese/constants/themeConstants.dart'; import 'package:lab_ese/controllers/appointment_controller.dart'; import 'package:lab_ese/screens/home_screen.dart'; import 'firebase_options.dart'; Future<void> main() async { WidgetsFlutterBinding.ensureInitialized(); await Firebase.initializeApp(options: DefaultFirebaseOptions.currentPlatform,); Get.put(AppointmentController()); runApp(const MyApp()); } class MyApp extends StatelessWidget { const MyApp({super.key}); // This widget is the root of your application. @override Widget build(BuildContext context) { return GetMaterialApp(title: 'Doctor Appointment App', debugShowCheckedModeBanner: false, theme: ThemeData(colorScheme: ColorScheme.fromSeed(seedColor: ThemeConstants.primaryColor), useMaterial3: true, scaffoldBackgroundColor: ThemeConstants.backgroundColor, appBarTheme: const AppBarTheme(backgroundColor: ThemeConstants.primaryColor,</pre>



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```
foregroundColor: Colors.white,  
centerTitle: true,  
elevation: 0,  
),  
elevatedButtonTheme: ElevatedButtonThemeData(  
  style: ThemeConstants.primaryButtonStyle,  
),  
outlinedButtonTheme: OutlinedButtonThemeData(  
  style: ThemeConstants.secondaryButtonStyle,  
),  
cardTheme: CardTheme(  
  elevation: 0,  
  shape: RoundedRectangleBorder(  
    borderRadius: BorderRadius.circular(12),  
  ),  
  color: ThemeConstants.cardColor,  
),  
textTheme: const TextTheme(  
  headlineLarge: ThemeConstants.headingStyle,  
  headlineMedium: ThemeConstants.subheadingStyle,  
  bodyLarge: ThemeConstants.bodyTextStyle,  
  bodyMedium: ThemeConstants.bodyTextStyle,  
  bodySmall: ThemeConstants.captionStyle,  
),  
),  
home: const HomeScreen(),  
);  
}  
}
```

Homescreen.dart

```
import 'package:flutter/material.dart';  
import 'package:get/get.dart';  
import 'package:lab_ese/constants/themeConstants.dart';  
import 'package:lab_ese/screens/appointment_screen.dart';  
import 'package:lab_ese/screens/appointments_list_screen.dart';
```

```
class HomeScreen extends StatelessWidget {  
  const HomeScreen({super.key});  
  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      backgroundColor: ThemeConstants.backgroundColor,  
      body: SafeArea(  
        child: Column(  
          children: [  
            Container(  
              width: double.infinity,  
              decoration: const BoxDecoration(  
                color: ThemeConstants.primaryColor,  
                borderRadius: BorderRadius.only(  
                  bottomLeft: Radius.circular(30),  
                  bottomRight: Radius.circular(30),  
                ),  
            ),  
            padding: const EdgeInsets.fromLTRB(20, 20, 20, 40),  
            child: Column(  
              crossAxisAlignment: CrossAxisAlignment.start,  

```



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```
children: [
  const Text(
    'Welcome to',
    style: TextStyle(
      color: Colors.white70,
      fontSize: 16,
    ),
  ),
  const SizedBox(height: 8),
  const Text(
    'NeuraLife',
    style: TextStyle(
      color: Colors.white,
      fontSize: 24,
      fontWeight: FontWeight.bold,
    ),
  ),
  const SizedBox(height: 10),
  Text(
    'Book your doctor appointments easily',
    style: TextStyle(
      color: Colors.white.withOpacity(0.9),
      fontSize: 16,
    ),
  ),
],
),
),
Expanded(
  child: SingleChildScrollView(
    padding: const EdgeInsets.all(20),
    child: Column(
      crossAxisAlignment: CrossAxisAlignment.start,
      children: [
        const Text(
          'What would you like to do?',
          style: ThemeConstants.subheadingStyle,
        ),
        const SizedBox(height: 20),
        InkWell(
          onTap: () => Get.to(() => AppointmentScreen()),
          child: Container(
            decoration: ThemeConstants.cardDecoration,
            padding: const EdgeInsets.all(20),
            margin: const EdgeInsets.only(bottom: 16),
            child: Row(
              children: [
                Container(
                  decoration: BoxDecoration(
                    color: ThemeConstants.primaryColor.withOpacity(0.1),
                    borderRadius: BorderRadius.circular(12),
                  ),
                  padding: const EdgeInsets.all(12),
                  child: const Icon(
                    Icons.calendar_month_rounded,
                    color: ThemeConstants.primaryColor,
                    size: 32,
```



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```
),
),
const SizedBox(width: 20),
Expanded(
  child: Column(
    crossAxisAlignment: CrossAxisAlignment.start,
    children: [
      const Text(
        'Book Appointment',
        style: TextStyle(
          fontSize: 18,
          fontWeight: FontWeight.bold,
          color: ThemeConstants.textPrimaryColor,
        ),
      ),
      const SizedBox(height: 4),
      Text(
        'Schedule a new appointment with one of our doctors',
        style: TextStyle(
          color:
ThemeConstants.textSecondaryColor.withOpacity(0.8),
        ),
      ),
    ],
  ),
),
const Icon(
  Icons.arrow_forward_ios_rounded,
  color: ThemeConstants.primaryColor,
  size: 16,
),
],
),
),
),
InkWell(
  onTap: () => Get.to() => AppointmentsListScreen(),
  child: Container(
    decoration: ThemeConstants.cardDecoration,
    padding: const EdgeInsets.all(20),
    margin: const EdgeInsets.only(bottom: 16),
    child: Row(
      children: [
        Container(
          decoration: BoxDecoration(
            color: ThemeConstants.secondaryColor.withOpacity(0.1),
            borderRadius: BorderRadius.circular(12),
          ),
          padding: const EdgeInsets.all(12),
          child: const Icon(
            Icons.list_alt_rounded,
            color: ThemeConstants.secondaryColor,
            size: 32,
          ),
        ),
        const SizedBox(width: 20),
        Expanded(
          child: Column(
```



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```
crossAxisAlignment: CrossAxisAlignment.start,
children: [
  const Text(
    'View Appointments',
    style: TextStyle(
      fontSize: 18,
      fontWeight: FontWeight.bold,
      color: ThemeConstants.textPrimaryColor,
    ),
  ),
  const SizedBox(height: 4),
  Text(
    'Check your upcoming appointments',
    style: TextStyle(
      color:
ThemeConstants.textSecondaryColor.withOpacity(0.8),
    ),
  ),
],
),
const Icon(
  Icons.arrow_forward_ios_rounded,
  color: ThemeConstants.secondaryColor,
  size: 16,
),
],
),
),
),
],
),
),
),
],
),
),
);
}
```

```
Widget _buildInfoItem(IconData icon, String text) {
  return Column(
    children: [
      Icon(
        icon,
        color: ThemeConstants.primaryColor,
        size: 20,
      ),
      const SizedBox(height: 4),
      Text(
        text,
        style: const TextStyle(
          fontSize: 14,
          color: ThemeConstants.textSecondaryColor,
        ),
      ),
    ],
  );
}
```



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```
}
AppointmentScreen.dart
import 'package:flutter/material.dart';
import 'package:get/get.dart';
import 'package:intl/intl.dart';
import 'package:lab_ese/constants/doctors_list.dart';
import 'package:lab_ese/constants/themeConstants.dart';
import 'package:lab_ese/controllers/appointment_controller.dart';

class AppointmentScreen extends StatefulWidget {
  const AppointmentScreen({super.key});

  @override
  State<AppointmentScreen> createState() => _AppointmentScreenState();
}

class _AppointmentScreenState extends State<AppointmentScreen> {
  final GlobalKey<FormState> _formKey = GlobalKey<FormState>();
  final TextEditingController _nameController = TextEditingController();
  final TextEditingController _addressController = TextEditingController();
  final TextEditingController _ageController = TextEditingController();
  final TextEditingController _contactController = TextEditingController();
  final TextEditingController _symptomsController = TextEditingController();

  final AppointmentController _controller = Get.find<AppointmentController>();

  Future<void> _selectDate(BuildContext context) async {
    final DateTime? picked = await showDatePicker(
      context: context,
      initialDate: _controller.appointmentDate.value,
      firstDate: DateTime.now(),
      lastDate: DateTime.now().add(const Duration(days: 365)),
      builder: (context, child) {
        return Theme(
          data: Theme.of(context).copyWith(
            colorScheme: const ColorScheme.light(
              primary: ThemeConstants.primaryColor,
              onPrimary: Colors.white,
              onSurface: ThemeConstants.textPrimaryColor,
            ),
          ),
          child: child!,
        );
      },
    );
    if (picked != null) {
      _controller.setAppointmentDate(picked);
    }
  }

  Future<void> _saveAppointment() async {
    if (_formKey.currentState!.validate()) {
      // Transfer values from controllers toGetX controller
      _controller.name.value = _nameController.text;
      _controller.address.value = _addressController.text;
      _controller.age.value = _ageController.text;
      _controller.contactDetails.value = _contactController.text;
      _controller.symptoms.value = _symptomsController.text;
    }
  }
}
```



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final result = await _controller.saveAppointment();

```
if (result) {
  Get.back();
  Get.snackbar(
    'Success',
    'Appointment booked successfully',
    snackPosition: SnackPosition.BOTTOM,
    backgroundColor: ThemeConstants.successColor,
    colorText: Colors.white,
    margin: const EdgeInsets.all(10),
    borderRadius: 10,
  );
} else {
  Get.snackbar(
    'Error',
    'Failed to book appointment',
    snackPosition: SnackPosition.BOTTOM,
    backgroundColor: ThemeConstants.errorColor,
    colorText: Colors.white,
    margin: const EdgeInsets.all(10),
    borderRadius: 10,
  );
}
}
}

@override
void dispose() {
  _nameController.dispose();
  _addressController.dispose();
  _ageController.dispose();
  _contactController.dispose();
  _symptomsController.dispose();
  super.dispose();
}

@override
Widget build(BuildContext context) {
  return Scaffold(
    backgroundColor: ThemeConstants.backgroundColor,
    appBar: AppBar(
      title: const Text('Book Appointment'),
      centerTitle: true,
    ),
    body: Obx(() => _controller.isLoading.value
      ? const Center(child: CircularProgressIndicator())
      : SingleChildScrollView(
        padding: const EdgeInsets.all(20.0),
        child: Form(
          key: _formKey,
          child: Column(
            crossAxisAlignment: CrossAxisAlignment.start,
            children: [
              const SizedBox(height: 10),

              Container(
                width: double.infinity,
                padding: const EdgeInsets.all(20),
```



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```
decoration: BoxDecoration(
  color: ThemeConstants.primaryColor,
  borderRadius: BorderRadius.circular(12),
),
child: Column(
  crossAxisAlignment: CrossAxisAlignment.start,
  children: [
    const Text(
      'Complete Your Appointment Details',
      style: TextStyle(
        color: Colors.white,
        fontSize: 18,
        fontWeight: FontWeight.bold,
      ),
    ),
    const SizedBox(height: 8),
    Text(
      'Fill in the form below to book your appointment with our
specialists',
      style: TextStyle(
        color: Colors.white.withOpacity(0.9),
        fontSize: 14,
      ),
    ),
  ],
),
const SizedBox(height: 20),
const Text(
  'Patient Information',
  style: ThemeConstants.subheadingStyle,
),
const SizedBox(height: 16),
_buildFormField(
  controller: _nameController,
  label: 'Patient Name',
  icon: Icons.person,
  validator: (value) {
    if (value == null || value.isEmpty || value.length <= 2) {
      return 'Please enter patient name';
    }
    return null;
  },
),
const SizedBox(height: 16),
_buildFormField(
  controller: _addressController,
  label: 'Address',
  icon: Icons.home,
  validator: (value) {
    if (value == null || value.isEmpty) {
      return 'Please enter address';
    }
    return null;
  },
),
const SizedBox(height: 16),
Row(
  children: [
```




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	<pre>Expanded(child: _buildFormField(controller: _ageController, label: 'Age', icon: Icons.calendar_today, keyboardType: TextInputType.number, validator: (value) { if (value == null value.isEmpty) { return 'Please enter age'; } if (int.tryParse(value) == null) { return 'Please enter a valid number'; } return null; },), , const SizedBox(width: 16), Expanded(child: _buildFormField(controller: _contactController, label: 'Contact Details', icon: Icons.phone, keyboardType: TextInputType.phone, validator: (value) { if (value == null value.isEmpty) { return 'Please enter contact details'; } if (value.length != 10) { return 'Please enter proper phone number'; } return null; },), ,),], , const SizedBox(height: 16), _buildFormField(controller: _symptomsController, label: 'Symptoms', icon: Icons.medical_services, maxLines: 3, validator: (value) { if (value == null value.isEmpty) { return 'Please enter symptoms'; } return null; }, , , const SizedBox(height: 24), const Text('Appointment Details', style: ThemeConstants.subheadingStyle, , const SizedBox(height: 16), Container(decoration: BoxDecoration(color: Colors.white,</pre>
--	---



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10),	<pre>borderRadius: BorderRadius.circular(8), border: Border.all(color: ThemeConstants.textLightColor),), child: DropdownButtonFormField<String>(decoration: const InputDecoration(labelText: 'Select Doctor', prefixIcon: Icon(Icons.person_outline), border: InputBorder.none, contentPadding: EdgeInsets.symmetric(horizontal: 16,vertical: 10),), value: _controller.selectedDoctor.value, items: doctors.map((Doctor doctor) { return DropdownMenuItem<String>(value: doctor.name, child: Text('\${doctor.name} (\${doctor.specialization})'),); }).toList(), onChanged: (String? newValue) { if (newValue != null) { _controller.setSelectedDoctor(newValue); } },),), const SizedBox(height: 16), InkWell(onTap: () => _selectDate(context), child: Container(padding: const EdgeInsets.symmetric(horizontal: 16, vertical: 14), decoration: BoxDecoration(color: Colors.white, borderRadius: BorderRadius.circular(8), border: Border.all(color: ThemeConstants.textLightColor),), child: Row(children: [const Icon(Icons.event, color: ThemeConstants.textSecondaryColor,), const SizedBox(width: 10), Column(crossAxisAlignment: CrossAxisAlignment.start, children: [const Text('Appointment Date', style: TextStyle(color: ThemeConstants.textSecondaryColor, fontSize: 12,),), const SizedBox(height: 4), Obx(() => Text(DateFormat('EEEE, MMM dd, yyyy').format(_controller.appointmentDate.value), style: const TextStyle(fontSize: 16, color: ThemeConstants.textPrimaryColor,</pre>
------	---



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fontWeight: FontWeight.w500,

```
),
)),
],
),
],
),
),
),
const SizedBox(height: 32),
SizedBox(
  width: double.infinity,
  height: 50,
  child: ElevatedButton(
    onPressed: _saveAppointment,
    child: const Text(
      'Book Appointment',
      style: TextStyle(fontSize: 18),
    ),
  ),
),
const SizedBox(height: 20),
],
),
),
),
),
);
}
```

```
Widget _buildFormField({
  required TextEditingController controller,
  required String label,
  required IconData icon,
  int maxLines = 1,
  TextInputType keyboardType = TextInputType.text,
  required String? Function(String?) validator,
}) {
  return Container(
    decoration: BoxDecoration(
      color: Colors.white,
      borderRadius: BorderRadius.circular(8),
    ),
    child: TextFormField(
      controller: controller,
      decoration: InputDecoration(
        labelText: label,
        prefixIcon: Icon(icon),
        border: OutlineInputBorder(
          borderRadius: BorderRadius.circular(8),
        ),
      ),
      maxLines: maxLines,
      keyboardType: keyboardType,
      validator: validator,
    ),
  );
}
```



Appointmentlist.dart

```
import 'package:flutter/material.dart';
import 'package:get/get.dart';
import 'package:intl/intl.dart';
import 'package:lab_ese/constants/themeConstants.dart';
import 'package:lab_ese/controllers/appointment_controller.dart';
import 'package:lab_ese/models/patient_model.dart';

class AppointmentsListScreen extends StatelessWidget {
  const AppointmentsListScreen({super.key});

  @override
  Widget build(BuildContext context) {
    final AppointmentController controller = Get.find<AppointmentController>();

    controller.loadPatients();

    return Scaffold(
      backgroundColor: ThemeConstants.backgroundColor,
      appBar: AppBar(
        title: const Text('All Appointments'),
        actions: [
          IconButton(
            icon: const Icon(Icons.refresh),
            onPressed: controller.loadPatients,
          ),
        ],
      ),
      body: Obx(() {
        if (controller.isLoading.value) {
          return const Center(child: CircularProgressIndicator());
        }

        if (controller.patients.isEmpty) {
          return Center(
            child: Column(
              mainAxisAlignment: MainAxisAlignment.center,
              children: [
                Icon(
                  Icons.calendar_today_outlined,
                  size: 70,
                  color: ThemeConstants.textLightColor.withOpacity(0.5),
                ),
                const SizedBox(height: 16),
                const Text(
                  'No appointments found',
                  style: TextStyle(
                    fontSize: 18,
                    color: ThemeConstants.textSecondaryColor,
                    fontWeight: FontWeight.w600,
                  ),
                ),
                const SizedBox(height: 8),
                const Text(
                  'Book your first appointment now!',
                  style: TextStyle(
                    color: ThemeConstants.textLightColor,
                  ),
                ),
              ],
            ),
          );
        }
      })
    );
  }
}
```



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```
),
const SizedBox(height: 24),
ElevatedButton.icon(
  onPressed: () {
    Get.back();
  },
  icon: const Icon(Icons.add),
  label: const Text('Book an Appointment'),
),
],
),
);
}

return ListView.builder(
  itemCount: controller.patients.length,
  padding: const EdgeInsets.all(16),
  itemBuilder: (context, index) {
    final patient = controller.patients[index];
    return _buildAppointmentCard(patient);
  },
);
}),
);
}

Widget _buildAppointmentCard(Patient patient) {
  final bool isUpcoming = patient.appointmentDate.isAfter(DateTime.now());

  return Container(
    margin: const EdgeInsets.only(bottom: 16),
    decoration: ThemeConstants.cardDecoration,
    child: Column(
      children: [

        Container(
          padding: const EdgeInsets.symmetric(vertical: 12, horizontal: 16),
          decoration: BoxDecoration(
            color: isUpcoming ? ThemeConstants.primaryColor.withOpacity(0.1) :
ThemeConstants.textLightColor.withOpacity(0.1),
            borderRadius: const BorderRadius.only(
              topLeft: Radius.circular(12),
              topRight: Radius.circular(12),
            ),
          ),
        ),
        child: Row(
          children: [
            Icon(
              Icons.event,
              size: 20,
              color: isUpcoming ? ThemeConstants.primaryColor :
ThemeConstants.textSecondaryColor,
            ),
            const SizedBox(width: 8),
            Text(
              DateFormat('EEEE, MMMM dd,
yyyy').format(patient.appointmentDate),
              style: TextStyle(
                fontWeight: FontWeight.w600,
```



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```
color: isUpcoming ? ThemeConstants.primaryColor :
ThemeConstants.textSecondaryColor,
),
),
const Spacer(),
Container(
padding: const EdgeInsets.symmetric(horizontal: 10, vertical: 4),
decoration: BoxDecoration(
color: isUpcoming ? ThemeConstants.primaryColor :
ThemeConstants.textLightColor,
borderRadius: BorderRadius.circular(20),
),
child: Text(
isUpcoming ? 'Upcoming' : 'Past',
style: const TextStyle(
color: Colors.white,
fontSize: 12,
fontWeight: FontWeight.w500,
),
),
),
),
],
),
),
),
// Patient details
Padding(
padding: const EdgeInsets.all(16),
child: Column(
crossAxisAlignment: CrossAxisAlignment.start,
children: [
Row(
crossAxisAlignment: CrossAxisAlignment.center,
children: [
Container(
width: 50,
height: 50,
decoration: BoxDecoration(
color: ThemeConstants.primaryColor.withOpacity(0.1),
shape: BoxShape.circle,
),
child: Center(
child: Text(
patient.name.isNotEmpty ? patient.name[0].toUpperCase() : '?',
style: const TextStyle(
fontSize: 24,
fontWeight: FontWeight.bold,
color: ThemeConstants.primaryColor,
),
),
),
),
const SizedBox(width: 16),
Expanded(
child: Column(
crossAxisAlignment: CrossAxisAlignment.start,
children: [
Text(
patient.name,
```

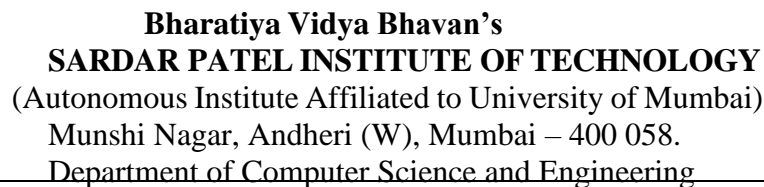


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```
style: const TextStyle(
  fontSize: 18,
  fontWeight: FontWeight.bold,
  color: ThemeConstants.textPrimaryColor,
),
),
Text(
  'Age: ${patient.age} years',
  style: const TextStyle(
    color: ThemeConstants.textSecondaryColor,
  ),
),
],
),
],
),
const SizedBox(height: 16),
const Divider(),
const SizedBox(height: 8),

// Contact and address
Row(
  children: [
    Expanded(
      child: _buildInfoItem(
        icon: Icons.phone,
        title: 'Contact',
        value: patient.contactDetails,
      ),
    ),
    Expanded(
      child: _buildInfoItem(
        icon: Icons.location_on_outlined,
        title: 'Address',
        value: patient.address,
      ),
    ),
  ],
),
const SizedBox(height: 16),

// Doctor and symptoms
Row(
  children: [
    Expanded(
      child: _buildInfoItem(
        icon: Icons.medical_services_outlined,
        title: 'Doctor',
        value: patient.doctorName,
      ),
    ),
    Expanded(
      child: _buildInfoItem(
        icon: Icons.sick_outlined,
        title: 'Symptoms',
        value: patient.symptoms,
      ),
    ),
  ],
),
```



```

    ],
  ),
],
),
),
],
),
);
}

Widget _buildInfoItem({
  required IconData icon,
  required String title,
  required dynamic value,
}) {
  return Padding(
    padding: const EdgeInsets.symmetric(vertical: 4),
    child: Row(
      crossAxisAlignment: CrossAxisAlignment.start,
      children: [
        Icon(
          icon,
          size: 16,
          color: ThemeConstants.textSecondaryColor,
        ),
        const SizedBox(width: 8),
        Expanded(
          child: Column(
            crossAxisAlignment: CrossAxisAlignment.start,
            children: [
              Text(
                title.toString(),
                style: const TextStyle(
                  fontSize: 12,
                  color: ThemeConstants.textLightColor,
                ),
              ),
              const SizedBox(height: 2),
              Text(
                value.toString(),
                style: const TextStyle(
                  color: ThemeConstants.textPrimaryColor,
                  fontSize: 14,
                ),
                maxLines: 2,
                overflow: TextOverflow.ellipsis,
              ),
            ],
          ),
        ),
      ],
    ),
  );
}
}

```




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appointmentcontroller.dart

```
import 'package:get/get.dart';
import 'package:lab_ese/constants/doctors_list.dart';
import 'package:lab_ese/models/patient_model.dart';
import 'package:lab_ese/services/firebase_service.dart';

class AppointmentController extends GetxController {
  final FirebaseService _firebaseService = FirebaseService();

  final RxString name = ".obs;";
  final RxString address = ".obs;";
  final RxString age = ".obs;";
  final RxString contactDetails = ".obs;";
  final RxString symptoms = ".obs;";
  final RxString selectedDoctor = doctors.first.name.obs;
  final Rx<DateTime> appointmentDate = DateTime.now().obs;

  final RxBool isLoading = false.obs;

  final RxList<Patient> patients = <Patient>[].obs;

  @override
  void onInit() {
    super.onInit();
    loadPatients();
  }

  void setAppointmentDate(DateTime date) {
    appointmentDate.value = date;
  }

  void setSelectedDoctor(String doctor) {
    selectedDoctor.value = doctor;
  }

  Future<bool> saveAppointment() async {
    isLoading.value = true;

    try {
      Patient patient = Patient(
        name: name.value,
        address: address.value,
        age: int.parse(age.value),
        contactDetails: int.parse(contactDetails.value),
        symptoms: symptoms.value,
        doctorName: selectedDoctor.value,
        appointmentDate: appointmentDate.value,
      );

      await _firebaseService.addPatient(patient);
      resetForm();
      await loadPatients();
      return true;
    } catch (e) {
      print('Error saving appointment: $e');
      return false;
    } finally {
      isLoading.value = false;
    }
  }
}
```



```
}  
}  
  
Future<void> loadPatients() async {  
  isLoading.value = true;  
  
  try {  
    final patientsList = await _firebaseService.getPatients();  
    patients.value = patientsList;  
  } catch (e) {  
    print('Error loading patients: $e');  
  } finally {  
    isLoading.value = false;  
  }  
}  
  
void resetForm() {  
  name.value = "";  
  address.value = "";  
  age.value = "";  
  contactDetails.value = "";  
  symptoms.value = "";  
  selectedDoctor.value = doctors.first.name;  
  appointmentDate.value = DateTime.now();  
}  
}
```

Patientmodel.dart

```
class Patient {  
  final String id;  
  final String name;  
  final String address;  
  final int age;  
  final int contactDetails;  
  final String symptoms;  
  final String doctorName;  
  final DateTime appointmentDate;  
  
  Patient({  
    this.id = "",  
    required this.name,  
    required this.address,  
    required this.age,  
    required this.contactDetails,  
    required this.symptoms,  
    required this.doctorName,  
    required this.appointmentDate,  
  });  
  
  Map<String, dynamic> toJson() {  
    return {  
      'name': name,  
      'address': address,  
      'age': age,  
      'contactDetails': contactDetails,  
      'symptoms': symptoms,  
      'doctorName': doctorName,  
      'appointmentDate': appointmentDate.toIso8601String(),  
    };  
  }  
}
```



```
}

factory Patient.fromJson(Map<String, dynamic> json, String id) {
  return Patient(
    id: id,
    name: json['name'] ?? "",
    address: json['address'] ?? "",
    age: json['age'] ?? 0,
    contactDetails: json['contactDetails'] ?? "",
    symptoms: json['symptoms'] ?? "",
    doctorName: json['doctorName'] ?? "",
    appointmentDate: json['appointmentDate'] != null
      ? DateTime.parse(json['appointmentDate'])
      : DateTime.now(),
  );
}

}

doctorlist.dart
class Doctor {
  final String name;
  final String specialization;

  Doctor({
    required this.name,
    required this.specialization,
  });
}

final List<Doctor> doctors = [
  Doctor(name: 'Dr. Adam Ansari', specialization: 'Cardiologist'),
  Doctor(name: 'Dr. Abhijeet Jadhav', specialization: 'Neurologist'),
  Doctor(name: 'Dr. Vineet Shinde', specialization: 'Orthopedic'),
  Doctor(name: 'Dr. Abhishek Jha', specialization: 'Pediatrician'),
  Doctor(name: 'Dr. Ram Verma', specialization: 'Dermatologist'),
  Doctor(name: 'Dr. Rohit Basak', specialization: 'Gynecologist'),
  Doctor(name: 'Dr. Atharva Angre', specialization: 'General Physician'),
];
```




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
Screenshots

Welcome to
NeuraLife

Book your doctor appointments easily

What would you like to do?


 **Book Appointment**
Schedule a new appointment
with one of our doctors >


 **View Appointments**
Check your upcoming
appointments >



← **Book Appointment**


Complete Your Appointment Details
Fill in the form below to book your appointment
with our specialists

Patient Information


 Patient Name


 Address

 Age  Contact Detai...

 Symptoms

Appointment Details

 Select Doctor
Dr. Adam Ansari (Cardiologist) ▾

 Appointment Date
Tuesday, May 13, 2025

Book Appointment



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←

Book Appointment

Complete Your Appointment Details

Fill in the form below to book your appointment with our specialists

Patient Information

Patient Name

Darshan Bhare

Address

SPIT

Age

22

Contact Details

7894561230

Symptoms

Fever

Appointment Details

Select Doctor

Dr. Atharva Angre (General Physician) ▾

Appointment Date

Wednesday, May 21, 2025

Book Appointment

Welcome to

NeuraLife

Book your doctor appointments easily

What would you like to do?

Book Appointment

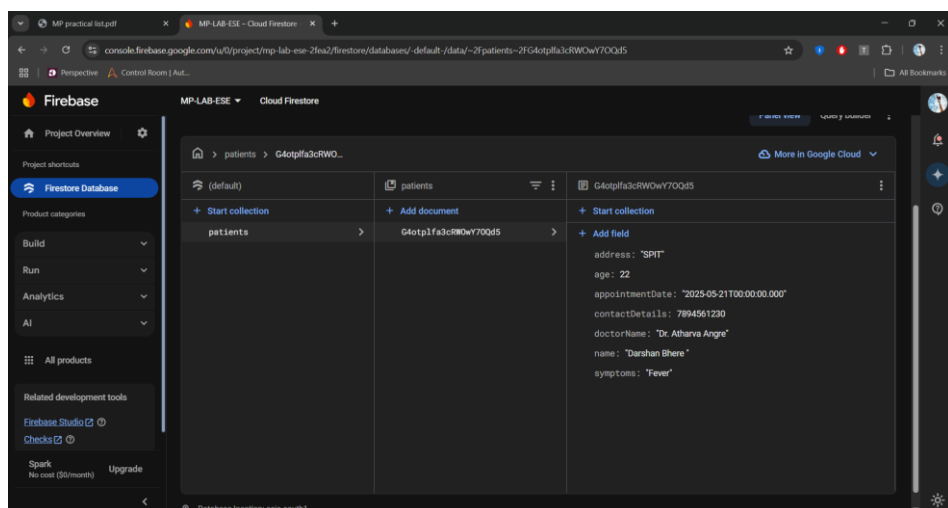
Schedule a new appointment with one of our doctors >

View Appointments

Check your upcoming appointments >

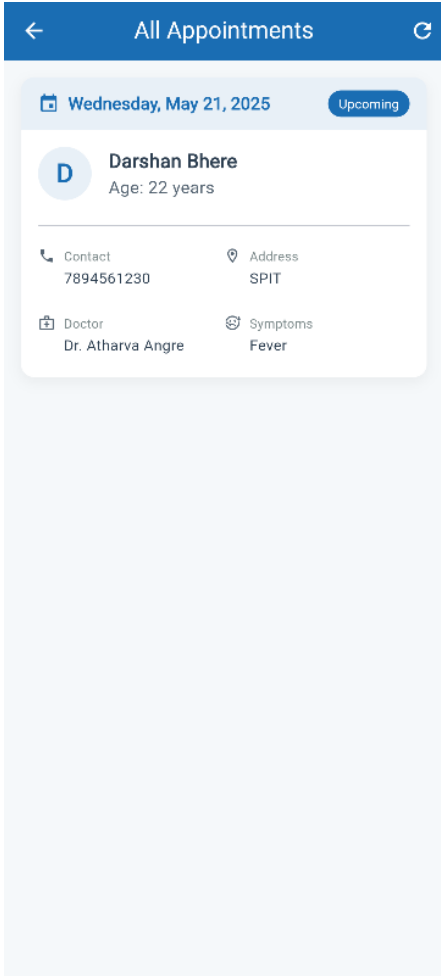
Success

Appointment booked successfully





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Question and Answers	<ol style="list-style-type: none">1. Which Widgets you have used for the application? TextFormField, showDatePicker, DropdownButtonFormField, ElevatedButton, Container, Row, Column, etc.2. Benefits of using flutter It gives the power of Cross Platform development by using a single code base.3. For the given theme which colour combination have you used and why? I have used a shade of Blue, grey and white. As the topic is Doctor appointment booking, the UI must be user friendly, soothing, eye catchy and yet professional.
Conclusion	Implemented Firebase Connect as well as data handling, used 30-60-10 rule for UI designing, Proper Validation of the User Input fields.