

EXPERIMENT - 3

main.dart

```
import 'package:flutter/material.dart';
import 'package:google_fonts/google_fonts.dart';
import 'signup.dart';
import 'home_screen.dart';

void main() {
  runApp(const BloodBankApp());
}

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

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Blood Bank App',
      debugShowCheckedModeBanner: false,
      theme: ThemeData(
        // Primary color scheme
        primarySwatch: Colors.red,
        primaryColor: Colors.red[900],

        // Light theme colors for home screen
        scaffoldBackgroundColor: Colors.white,

        // Card theme
        cardTheme: CardTheme(
          elevation: 4,
          shape: RoundedRectangleBorder(
            borderRadius: BorderRadius.circular(8),
          ),
        ),

        // Bottom navigation theme
        bottomNavigationBarTheme: BottomNavigationBarThemeData(
          selectedItemColor: Colors.red[900],
          unselectedItemColor: Colors.grey,
        ),

        // Text theme
```

```

textTheme: TextTheme(
  displayLarge: GoogleFonts.lato(
    fontSize: 32,
    fontWeight: FontWeight.bold,
    color: Colors.black,
  ),
  bodyLarge: GoogleFonts.lato(
    color: Colors.black,
  ),
  bodyMedium: GoogleFonts.lato(
    color: Colors.black87,
  ),
),

// Input decoration theme
inputDecorationTheme: InputDecorationTheme(
  labelStyle: TextStyle(color: Colors.white70),
  enabledBorder: UnderlineInputBorder(
    borderSide: BorderSide(color: Colors.white38),
  ),
  focusedBorder: UnderlineInputBorder(
    borderSide: BorderSide(color: Colors.redAccent),
  ),
  errorStyle: TextStyle(color: Colors.redAccent),
),

// Button theme
elevatedButtonTheme: ElevatedButtonThemeData(
  style: ElevatedButton.styleFrom(
    backgroundColor: Colors.redAccent,
    padding: EdgeInsets.symmetric(horizontal: 50, vertical: 12),
    shape: RoundedRectangleBorder(
      borderRadius: BorderRadius.circular(8),
    ),
  ),
),

// AppBar theme
appBarTheme: AppBarTheme(
  backgroundColor: Colors.red[900],
  elevation: 0,
  iconTheme: IconThemeData(color: Colors.white),
  titleTextStyle: GoogleFonts.lato(
    color: Colors.white,
  ),
),

```

```

        fontSize: 20,
        fontWeight: FontWeight.w500,
      ),
    ),
  ),

  // Initial route
  initialRoute: '/signup',

  // Define routes
  routes: {
    '/': (context) => SignupScreen(),
    '/signup': (context) => SignupScreen(),
    '/home': (context) => HomeScreen(),
  },
);
}
}

```

signup.dart

```

import 'package:flutter/material.dart';
import 'package:google_fonts/google_fonts.dart';
import 'package:email_validator/email_validator.dart';

class SignupScreen extends StatefulWidget {
  @override
  _SignupScreenState createState() => _SignupScreenState();
}

class _SignupScreenState extends State<SignupScreen> {
  bool _isPasswordVisible = false;
  bool _isConfirmPasswordVisible = false;
  String? selectedBloodGroup;
  final _formKey = GlobalKey<FormState>();

  // Controllers for form fields
  final _nameController = TextEditingController();
  final _emailController = TextEditingController();
  final _passwordController = TextEditingController();
  final _confirmPasswordController = TextEditingController();
  final _contactController = TextEditingController();

  @override
  void dispose() {

```

```

    _nameController.dispose();
    _emailController.dispose();
    _passwordController.dispose();
    _confirmPasswordController.dispose();
    _contactController.dispose();
    super.dispose();
}

```

```

@override
Widget build(BuildContext context) {
  return Scaffold(
    backgroundColor: Colors.brown[900],
    body: SafeArea(
      child: SingleChildScrollView(
        child: Padding(
          padding: const EdgeInsets.symmetric(horizontal: 24.0),
          child: Form(
            key: _formKey,
            child: Column(
              children: [
                SizedBox(height: 40),
                // Logo
                Center(
                  child: Container(
                    height: 120,
                    width: 120,
                    decoration: BoxDecoration(
                      shape: BoxShape.circle,
                      color: Colors.white,
                      boxShadow: [
                        BoxShadow(
                          color: Colors.black.withOpacity(0.2),
                          spreadRadius: 2,
                          blurRadius: 8,
                          offset: Offset(0, 4),
                        ),
                      ],
                    ),
                  ),
                padding: EdgeInsets.all(16),
                child: Image.asset(
                  'assets/logo.png',
                  fit: BoxFit.contain,
                ),
              ],
            ),
          ),
        ),
      ),
    ),
  );
}

```

```

),
  SizedBox(height: 24),
  // App Name
  Text(
    "BloodSync",
    style: GoogleFonts.lato(
      fontSize: 32,
      fontWeight: FontWeight.bold,
      color: Colors.white,
    ),
  ),
  // Tagline
  Text(
    "Save Lives by Donating Blood",
    style: GoogleFonts.lato(
      fontSize: 16,
      color: Colors.white70,
    ),
  ),
  // Form Fields
  _buildTextField(
    "Full Name",
    _nameController,
    validator: (value) {
      if (value == null || value.isEmpty) {
        return 'Please enter your name';
      }
      return null;
    },
  ),
  _buildTextField(
    "Email",
    _emailController,
    validator: (value) {
      if (value == null || value.isEmpty) {
        return 'Please enter your email';
      }
      if (!EmailValidator.validate(value)) {
        return 'Please enter a valid email';
      }
      return null;
    },
  ),

```

```

    ),
    _buildPasswordField("Password", true, _passwordController),
    _buildPasswordField("Confirm Password", false, _confirmPasswordController),
    _buildTextField(
      "Contact",
      _contactController,
      validator: (value) {
        if (value == null || value.isEmpty) {
          return 'Please enter your contact number';
        }
        if (!RegExp(r'^\+?\d\s-{10,}$').hasMatch(value)) {
          return 'Please enter a valid contact number';
        }
        return null;
      },
    ),
    _buildDropdown("Blood Group"),
    SizedBox(height: 40),
    _buildSubmitButton(),
    SizedBox(height: 24),
  ],
),
),
),
),
),
);
}

```

```

Widget _buildTextField(
  String label,
  TextEditingController controller, {
  String? Function(String?)? validator,
}) {
  return Padding(
    padding: const EdgeInsets.only(bottom: 16.0),
    child: TextFormField(
      controller: controller,
      style: TextStyle(color: Colors.white),
      validator: validator,
      decoration: InputDecoration(
        labelText: label,
        labelStyle: TextStyle(color: Colors.white70),
        enabledBorder: UnderlineInputBorder(

```

```

        borderSide: BorderSide(color: Colors.white38),
      ),
      focusedBorder: UnderlineInputBorder(
        borderSide: BorderSide(color: Colors.redAccent),
      ),
      errorStyle: TextStyle(color: Colors.redAccent),
    ),
  ),
);
}

```

```

Widget _buildPasswordField(
  String label,
  bool isPassword,
  TextEditingController controller,
) {
  return Padding(
    padding: const EdgeInsets.only(bottom: 16.0),
    child: TextFormField(
      controller: controller,
      obscureText: isPassword ? !_isPasswordVisible : !_isConfirmPasswordVisible,
      style: TextStyle(color: Colors.white),
      validator: (value) {
        if (value == null || value.isEmpty) {
          return 'Please enter a password';
        }
        if (value.length < 6) {
          return 'Password must be at least 6 characters';
        }
        if (isPassword && value != _confirmPasswordController.text) {
          return 'Passwords do not match';
        }
        if (!isPassword && value != _passwordController.text) {
          return 'Passwords do not match';
        }
        return null;
      },
      decoration: InputDecoration(
        labelText: label,
        labelStyle: TextStyle(color: Colors.white70),
        suffixIcon: IconButton(
          icon: Icon(
            isPassword
              ? (_isPasswordVisible ? Icons.visibility : Icons.visibility_off)

```

```

        : (_isConfirmPasswordVisible
        ? Icons.visibility
        : Icons.visibility_off),
        color: Colors.white54,
    ),
    onPressed: () {
        setState(() {
            if (isPassword) {
                _isPasswordVisible = !_isPasswordVisible;
            } else {
                _isConfirmPasswordVisible = !_isConfirmPasswordVisible;
            }
        });
    },
    ),
    enabledBorder: UnderlineInputBorder(
        borderSide: BorderSide(color: Colors.white38),
    ),
    focusedBorder: UnderlineInputBorder(
        borderSide: BorderSide(color: Colors.redAccent),
    ),
    errorStyle: TextStyle(color: Colors.redAccent),
),
),
);
}

```

```

Widget _buildDropdown(String label) {
    List<String> bloodGroups = ['A+', 'A-', 'B+', 'B-', 'O+', 'O-', 'AB+', 'AB-'];

```

```

    return Padding(
        padding: const EdgeInsets.only(bottom: 16.0),
        child: DropdownButtonFormField<String>(
            dropdownColor: Colors.brown[800],
            value: selectedBloodGroup,
            style: TextStyle(color: Colors.white),
            validator: (value) {
                if (value == null) {
                    return 'Please select a blood group';
                }
                return null;
            },
            onChanged: (newValue) {
                setState(() {

```



```

        selectedBloodGroup = newValue;
    });
},
decoration: InputDecoration(
    labelText: label,
    labelStyle: TextStyle(color: Colors.white70),
    enabledBorder: UnderlineInputBorder(
        borderSide: BorderSide(color: Colors.white38),
    ),
    focusedBorder: UnderlineInputBorder(
        borderSide: BorderSide(color: Colors.redAccent),
    ),
    errorStyle: TextStyle(color: Colors.redAccent),
),
items: bloodGroups.map((group) {
    return DropdownMenuItem(
        value: group,
        child: Text(group, style: TextStyle(color: Colors.white)),
    );
}).toList(),
),
);
}

```

```

Widget _buildSubmitButton() {
    return SizedBox(
        width: double.infinity,
        child: ElevatedButton(
            style: ElevatedButton.styleFrom(
                backgroundColor: Colors.redAccent,
                padding: EdgeInsets.symmetric(vertical: 16),
                shape: RoundedRectangleBorder(
                    borderRadius: BorderRadius.circular(8),
                ),
            ),
            onPressed: () {
                if (_formKey.currentState!.validate()) {
                    // TODO: Implement signup logic
                    Navigator.pushReplacementNamed(context, '/home');
                }
            },
            child: Text(
                "Sign Up",
                style: GoogleFonts.lato(

```

```

        fontSize: 18,
        fontWeight: FontWeight.bold,
        color: Colors.white,
      ),
    ),
  ),
);
}
}

```

homepage.dart

```

// home_screen.dart
import 'package:flutter/material.dart';
import 'package:google_fonts/google_fonts.dart';

class HomeScreen extends StatefulWidget {
  final String userName;
  final String bloodGroup;
  final String userId;

  const HomeScreen({
    Key? key,
    this.userName = "Arjun Singh",
    this.bloodGroup = "B+",
    this.userId = "USAVER-835474",
  }) : super(key: key);

  @override
  _HomeScreenState createState() => _HomeScreenState();
}

class _HomeScreenState extends State<HomeScreen> {
  int _selectedIndex = 0;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: _buildAppBar(),
      body: _buildBody(),
      bottomNavigationBar: _buildBottomNavigationBar(),
    );
  }

  PreferredSizeWidget _buildAppBar() {

```

```

return AppBar(
  backgroundColor: Colors.red[900],
  leading: IconButton(
    icon: Icon(Icons.menu),
    onPressed: () {
      // TODO: Implement menu functionality
    },
  ),
  title: Row(
    children: [
      CircleAvatar(
        backgroundColor: Colors.white,
        child: Icon(Icons.person, color: Colors.red[900]),
      ),
      SizedBox(width: 10),
      Text(
        'Welcome ${widget.userName}',
        style: GoogleFonts.lato(color: Colors.white),
      ),
    ],
  ),
  actions: [
    IconButton(
      icon: Icon(Icons.notifications),
      onPressed: () {
        // TODO: Implement notifications
      },
    ),
  ],
);
}

```

```

Widget _buildBody() {
  List<Widget> pages = [
    _buildHomePage(),
    _buildDonatePage(),
    _buildRequestPage(),
  ];

  return pages[_selectedIndex];
}

```

```

Widget _buildHomePage() {
  return SingleChildScrollView(

```

```
padding: EdgeInsets.all(16),
child: Column(
  crossAxisAlignment: CrossAxisAlignment.stretch,
  children: [
    _buildUserCard(),
    SizedBox(height: 16),
    _buildAdvertCard(),
    SizedBox(height: 16),
    _buildActionButtons(),
    SizedBox(height: 16),
    _buildRequestCard(),
    SizedBox(height: 16),
    _buildBottomActions(),
  ],
),
);
}
```

```
Widget _buildUserCard() {
  return Card(
    elevation: 4,
    child: Padding(
      padding: EdgeInsets.all(16),
      child: Row(
        mainAxisAlignment: MainAxisAlignment.spaceBetween,
        children: [
          Column(
            crossAxisAlignment: CrossAxisAlignment.start,
            children: [
              Text(
                widget.userId,
                style: TextStyle(fontSize: 20, fontWeight: FontWeight.bold),
              ),
              Text('USER ID', style: TextStyle(color: Colors.grey)),
            ],
          ),
          Column(
            children: [
              Container(
                width: 60,
                height: 60,
                decoration: BoxDecoration(
                  color: Colors.red[900],
                  shape: BoxShape.circle,
                ),
              ),
            ],
          ),
        ],
      ),
    ),
  );
}
```

```

    ),
    child: Center(
      child: Text(
        widget.bloodGroup,
        style: TextStyle(
          color: Colors.white,
          fontSize: 24,
          fontWeight: FontWeight.bold,
        ),
      ),
    ),
  ),
  Text('Blood Group'),
],
),
],
),
),
);
}

```

```

Widget _buildAdvertCard() {
  return Card(
    child: Padding(
      padding: EdgeInsets.all(16),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Row(
            children: [
              Text(
                'KR4ALL',
                style: TextStyle(
                  fontSize: 20,
                  fontWeight: FontWeight.bold,
                  color: Colors.blue[900],
                ),
              ),
              Icon(Icons.medical_services, color: Colors.blue[900]),
            ],
          ),
          SizedBox(height: 8),
          Text(
            'Healthcare in your Pocket',

```

```

        style: TextStyle(fontSize: 18, fontWeight: FontWeight.bold),
      ),
      Text('Get Consultations, Lab tests and medicines in one place'),
      SizedBox(height: 8),
      ElevatedButton(
        onPressed: () {
          // TODO: Implement download action
        },
        child: Text('Download now'),
        style: ElevatedButton.styleFrom(
          backgroundColor: Colors.pink[100],
        ),
      ),
    ],
  ),
);
}

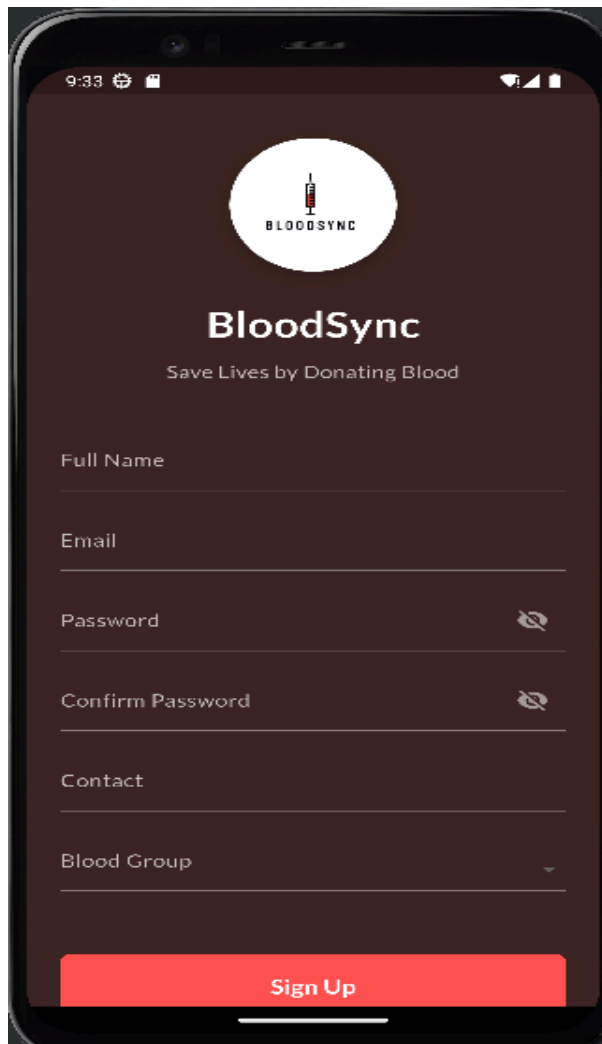
```

```

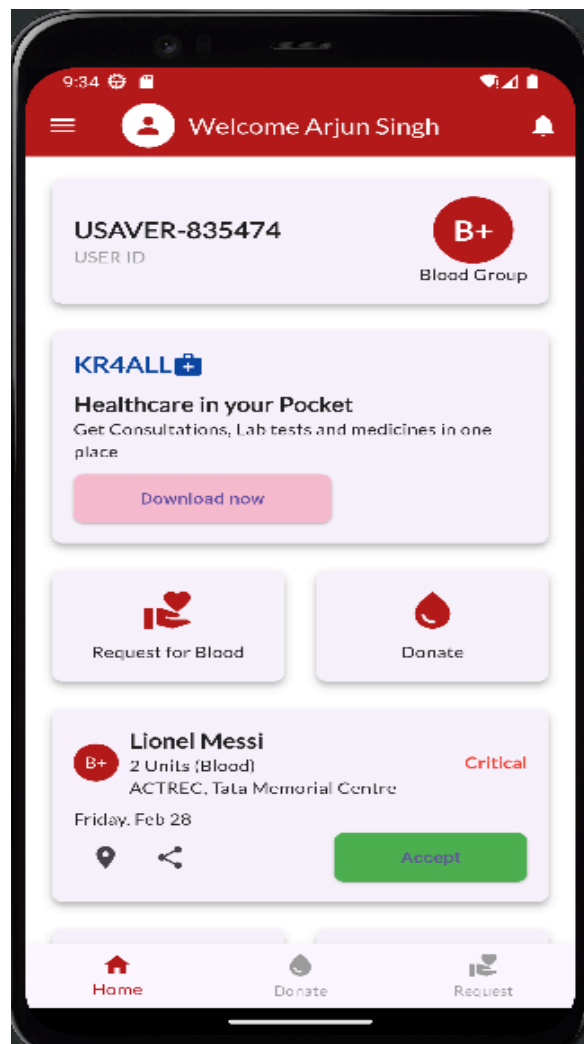
Widget _buildActionButtons() {
  return Row(
    children: [
      Expanded(
        child: _buildActionButton(
          icon: Icons.volunteer_activism,
          label: 'Request for Blood',
          onTap: () => setState(() => _selectedIndex = 2),
        ),
      ),
      SizedBox(width: 16),
      Expanded(
        child: _buildActionButton(
          icon: Icons.water_drop,
          label: 'Donate',
          onTap: () => setState(() => _selectedIndex = 1),
        ),
      ),
    ],
  );
}

```

Output :



The image shows the 'Sign Up' screen of the BloodSync app. At the top, there is a circular logo with a syringe icon and the text 'BLOODSYNC'. Below the logo, the app name 'BloodSync' is displayed in a large, bold font, followed by the tagline 'Save Lives by Donating Blood'. The screen contains several input fields for user registration: 'Full Name', 'Email', 'Password' (with an eye icon for toggling visibility), 'Confirm Password' (also with an eye icon), 'Contact', and 'Blood Group' (with a dropdown arrow). A prominent red 'Sign Up' button is located at the bottom of the form.



The image shows the 'Home' screen of the BloodSync app. The top navigation bar is red and features a hamburger menu icon, a user profile icon, the text 'Welcome Arjun Singh', and a notification bell icon. The main content area includes a user profile card with the text 'USAVR-835474' and 'USER ID', and a red circle with 'B+' and 'Blood Group'. Below this is a 'KR4ALL' advertisement for healthcare services with a 'Download now' button. Two large buttons, 'Request for Blood' and 'Donate', are positioned in the middle. At the bottom, there is a card for a blood request from 'Lionel Messi' for '2 Units (Blood)' at 'ACTREC, Tata Memorial Centre', dated 'Friday, Feb 28'. The card includes a location pin icon, a share icon, and a green 'Accept' button. The bottom navigation bar has three icons: 'Home' (house icon), 'Donate' (blood drop icon), and 'Request' (person with heart icon).