```
// src/
  - components,
  - utils/
// App.js
// package.json
"name": "elderly-tech-helper",
"version": "1.0.0",
 "description": "An app to help older adults with technology",
"main": "node modules/expo/AppEntry.js",
"scripts": {
  "start": "expo start",
"android": "expo start --android",
  "ios": "expo start --ios",
  "web": "expo start --web",
  "eject": "expo eject",
  "test": "jest"
 "dependencies": {
   "@react-navigation/bottom-tabs": "^6.5.8",
   "@react-navigation/native": "^6.1.7",
   "expo": "^48.0.0",
   "expo-av": "~13.2.1",
   "expo-speech": "~11.1.1",
  "expo-status-bar": "~1.4.4",
  "expo-video-thumbnails": "~7.2.1",
   "firebase": "^10.1.0",
  "react": "18.2.0",
  "react-native": "0.71.8",
   "react-native-gesture-handler": "~2.9.0",
  "react-native-paper": "^5.9.1",
   "react-native-safe-area-context": "4.5.0",
   "react-native-screens": "~3.20.0",
  "react-native-vector-icons": "^9.2.0",
```

```
"react-native-webrtc": "^1.106.1"
 "devDependencies": {
   "@babel/core": "^7.20.0",
   "@testing-library/react-native": "^12.1.2",
   "jest": "^29.2.1",
 "jest-expo": "^48.0.0"
 "private": true
import React, { useState, useEffect } from 'react';
import { NavigationContainer } from '@react-navigation/native';
import { StatusBar } from 'expo-status-bar';
import { SafeAreaProvider } from 'react-native-safe-area-context';
import { Provider as PaperProvider } from 'react-native-paper';
import { initializeApp } from 'firebase/app';
import { getAuth, onAuthStateChanged } from 'firebase/auth';
import AuthNavigator from './src/navigation/AuthNavigator';
import MainNavigator from './src/navigation/MainNavigator';
import LoadingScreen from './src/screens/LoadingScreen';
const firebaseConfig = {
 apiKey: "YOUR API KEY",
 authDomain: "YOUR AUTH DOMAIN",
 projectId: "YOUR PROJECT ID",
 storageBucket: "YOUR STORAGE BUCKET",
 messagingSenderId: "YOUR MESSAGING SENDER ID",
 appId: "YOUR APP ID"
initializeApp(firebaseConfig);
export default function App() {
 const [user, setUser] = useState(null);
 const [isLoading, setIsLoading] = useState(true);
 const auth = getAuth();
useEffect(() => {
   const unsubscribe = onAuthStateChanged(auth, (user) => {
    setUser(user);
     setIsLoading(false);
```

```
return unsubscribe;
 if (isLoading) {
return (
   <<u>SafeAreaProvider></u>
     <PaperProvider>
       <NavigationContainer>
          {user ? <MainNavigator /> : <AuthNavigator />}
         <StatusBar style="auto" />
     </NavigationContainer>
     </PaperProvider>
  </SafeAreaProvider>
import React from 'react';
import { View, ActivityIndicator, StyleSheet } from 'react-native';
 return (
  <View style={styles.container}>
    <ActivityIndicator size="large" color="#0000ff" />
 </View>
);
const styles = StyleSheet.create({
container: {
   flex: 1,
   justifyContent: 'center',
  alignItems: 'center',
});
export default LoadingScreen;
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import LoginScreen from '../screens/auth/LoginScreen';
import RegisterScreen from '../screens/auth/RegisterScreen';
```

```
import ForgotPasswordScreen from '../screens/auth/ForgotPasswordScreen';
const Stack = createStackNavigator();
const AuthNavigator = () => {
return (
   <Stack.Navigator initialRouteName="Login" screenOptions={ {</pre>
neaderShown: false }}>
     <Stack.Screen name="Login" component={LoginScreen} />
     <Stack.Screen name="Register" component={RegisterScreen} />
   <Stack.Screen name="ForgotPassword" component={ForgotPasswordScreen}</pre>
 </Stack.Navigator>
export default AuthNavigator;
import React from 'react';
import { createBottomTabNavigator } from '@react-navigation/bottom-tabs';
import { Ionicons } from '@expo/vector-icons';
import HomeNavigator from './HomeNavigator';
import GuidesNavigator from './GuidesNavigator';
import VideoCallNavigator from './VideoCallNavigator';
import VoiceNavigator from './VoiceNavigator';
import SettingsNavigator from './SettingsNavigator';
const Tab = createBottomTabNavigator();
const MainNavigator = () => {
 return (
   <Tab.Navigator
      tabBarIcon: ({ focused, color, size }) => {
      let iconName;
          if (route.name === 'Home') {
           iconName = focused ? 'home' : 'home-outline';
          } else if (route.name === 'Guides') {
           iconName = focused ? 'book' : 'book-outline';
         } else if (route.name === 'Video Call') {
            iconName = focused ? 'videocam' : 'videocam-outline';
         } else if (route.name === 'Voice Help') {
            iconName = focused ? 'mic' : 'mic-outline';
          } else if (route.name === 'Settings') {
```

```
iconName = focused ? 'settings' : 'settings-outline';
}
        },
       tabBarActiveTintColor: '#4f8ef7',
        tabBarInactiveTintColor: 'gray',
        tabBarLabelStyle: {
       fontSize: 12,
        },
      headerShown: false,
     })}
      <Tab.Screen name="Home" component={HomeNavigator} />
     <Tab.Screen name="Guides" component={GuidesNavigator} />
     <Tab.Screen name="Video Call" component={VideoCallNavigator} />
     <Tab.Screen name="Voice Help" component={VoiceNavigator} />
     <Tab.Screen name="Settings" component={SettingsNavigator} />
   </Tab.Navigator>
export default MainNavigator;
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import HomeScreen from '../screens/HomeScreen';
const Stack = createStackNavigator();
 return (
   <Stack.Navigator>
     <Stack.Screen name="HomeScreen" component={HomeScreen} options={{</pre>
title: 'Tech Helper' }} />
  </Stack.Navigator>
);
};
export default HomeNavigator;
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import GuidesScreen from '../screens/guides/GuidesScreen';
import GuideDetailScreen from '../screens/quides/GuideDetailScreen';
```

```
import GuideStepScreen from '../screens/guides/GuideStepScreen';
import CreateGuideScreen from '../screens/guides/CreateGuideScreen';
const Stack = createStackNavigator();
const GuidesNavigator = () => {
 return (
    <Stack.Navigator>
    <Stack.Screen name="GuidesScreen" component={GuidesScreen}</pre>
options={{ title: 'How-to Guides' }} />
    <Stack.Screen name="GuideDetail" component={GuideDetailScreen}</pre>
options={({ route }) => ({ title: route.params?.title || 'Guide Details'
}) } />
     <Stack.Screen name="GuideStep" component={GuideStepScreen}</pre>
options={{ title: 'Step-by-Step' }} />
     <Stack.Screen name="CreateGuide" component={CreateGuideScreen}</pre>
options={{ title: 'Create Custom Guide' }} />
  </Stack.Navigator>
);
};
export default GuidesNavigator;
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import VideoCallHomeScreen from
'../screens/videocall/VideoCallHomeScreen';
import FindHelperScreen from '../screens/videocall/FindHelperScreen';
import CallScreen from '../screens/videocall/CallScreen';
import HelperProfileScreen from
'../screens/videocall/HelperProfileScreen';
const Stack = createStackNavigator();
const VideoCallNavigator = () => {
 return (
   <Stack.Navigator>
      <Stack.Screen name="VideoCallHome" component={VideoCallHomeScreen}</pre>
options={{ title: 'Video Help' }} />
      <Stack.Screen name="FindHelper" component={FindHelperScreen}</pre>
options={{    title: 'Find a Helper' }} />
     <Stack.Screen name="Call" component={CallScreen} options={{ title:</pre>
'Tech Support Call', headerShown: false }} />
    <Stack.Screen name="HelperProfile" component={HelperProfileScreen}</pre>
options={({ route }) => ({ title: route.params?.name || 'Helper Profile'
```

```
</Stack.Navigator>
export default VideoCallNavigator;
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import VoiceHomeScreen from '../screens/voice/VoiceHomeScreen';
import VoiceTutorialScreen from '../screens/voice/VoiceTutorialScreen';
const Stack = createStackNavigator();
const VoiceNavigator = () => {
 return (
   <Stack.Navigator>
options={{    title: 'Voice Tutorials' }} />
   <Stack.Screen name="VoiceTutorial" component={VoiceTutorialScreen}</pre>
options={{    title: 'Voice Guide', headerShown: false }} />
   </Stack.Navigator>
);
};
export default VoiceNavigator;
import React from 'react';
import { createStackNavigator } from '@react-navigation/stack';
import SettingsScreen from '../screens/settings/SettingsScreen';
import ProfileScreen from '../screens/settings/ProfileScreen';
import AccessibilityScreen from '../screens/settings/AccessibilityScreen';
import NotificationsScreen from '../screens/settings/NotificationsScreen';
import HelpScreen from '../screens/settings/HelpScreen';
const Stack = createStackNavigator();
const SettingsNavigator = () => {
 return (
    <Stack.Navigator>
     <Stack.Screen name="SettingsScreen" component={SettingsScreen}</pre>
options={{ title: 'Settings' }} />
     <Stack.Screen name="Profile" component={ProfileScreen} options={{</pre>
title: 'My Profile' }} />
      <Stack.Screen name="Accessibility" component={AccessibilityScreen}</pre>
options={{ title: 'Accessibility' }} />
```

```
<Stack.Screen name="Notifications" component={NotificationsScreen}</pre>
options={{    title: 'Notifications' }} />
  <Stack.Screen name="Help" component={HelpScreen} options={{ title:</pre>
'Help & Support' }} _/>
</Stack.Navigator>
);
};
export default SettingsNavigator;
// src/screens/HomeScreen.js
import React from 'react';
import { View, Text, StyleSheet, ScrollView, TouchableOpacity, Image }
from 'react-native';
import { Card, Title, Paragraph, Button } from 'react-native-paper';
import { Ionicons } from '@expo/vector-icons';
import { SafeAreaView } from 'react-native-safe-area-context';
const HomeScreen = ({ navigation }) => {
const recentGuides = [
{ id: 1, title: 'How to Send an Email', category: 'Email', icon:
'mail' },
  { id: 2, title: 'Using Video Calls', category: 'Communication', icon:
'videocam' },
 { id: 3, title: 'Smartphone Basics', category: 'Mobile', icon:
'phone-portrait' },
 const quickHelp = [
   { id: 1, title: 'Connect to WiFi', icon: 'wifi' },
   { id: 2, title: 'Install an App', icon: 'download' },
   { id: 3, title: 'Take a Photo', icon: 'camera' },
  { id: 4, title: 'Make a Call', icon: 'call' },
return (
   <SafeAreaView style={styles.container}>
     <ScrollView>
       <View style={styles.header}>
        <Text style={styles.welcomeText}>Welcome back, Susan!</Text>
         <Text style={styles.subtitle}>What would you like help with
today?</Text>
     </View>
    <View style={styles.quickHelpSection}>
         <Text style={styles.sectionTitle}>Quick Help</Text>
         <View style={styles.quickHelpGrid}>
```

```
{quickHelp.map(item => (
              <TouchableOpacity
               key={item.id}
               onPress={() => navigation.navigate('Guides', {
                 screen: 'GuideDetail',
                 params: { id: item.id, title: item.title }
                })}
               <View style={styles.iconContainer}>
                 <Ionicons name={item.icon} size={24} color="#4f8ef7" />
               </View>
                <Text style={styles.quickHelpText}>{item.title}</Text>
             </TouchableOpacity>
           ))}
         </View>
    </View>
       <View style={styles.section}>
         <Text style={styles.sectionTitle}>Need Immediate Help?</Text>
         <Card style={styles.videoCallCard}>
           <Card.Content>
             <Title>Talk to a Live Helper</Title>
             <Paragraph>Get real-time assistance from our friendly
support team</Paragraph>
           </Card.Content>
           <Card.Actions>
             <Button
               mode="contained"
               onPress={() => navigation.navigate('Video Call')}
               style={styles.videoCallButton}
             </Button>
            </Card.Actions>
         </Card>
      </View>
       <View style={styles.section}>
         <View style={styles.sectionTitleContainer}>
            <Text style={styles.sectionTitle}>Recent Guides</Text>
           <TouchableOpacity onPress={() =>
navigation.navigate('Guides')}>
             <Text style={styles.seeAllText}>See All</Text>
           </TouchableOpacity>
         </View>
         {recentGuides.map(guide => (
```

```
key={guide.id}
          onPress={() => navigation.navigate('Guides', {
            screen: 'GuideDetail',
            params: { id: guide.id, title: guide.title }
          })}
            <Card.Content style={styles.guideCardContent}>
              <View style={styles.guideIconContainer}>
               <Ionicons name={guide.icon} size={24} color="#4f8ef7"</pre>
              </View>
              <View style={styles.guideTextContainer}>
                <Title>{guide.title}</Title>
                <Paragraph>{guide.category}</Paragraph>
              </View>
            </Card.Content>
          </Card>
        </TouchableOpacity>
      ) ) }
    </View>
    <View style={styles.section}>
      <Text style={styles.sectionTitle}>Try Voice Commands</Text>
      <Card style={styles.voiceCard}>
        <Card.Content style={styles.voiceCardContent}>
          <View style={styles.voiceTextContainer}>
            <Title>Voice-Controlled Help</Title>
            <Paragraph>Just say what you need help with</Paragraph>
          </View>
          <TouchableOpacity
            onPress={() => navigation.navigate('Voice Help')}
           <Ionicons name="mic" size={32} color="white" />
          </TouchableOpacity>
        </Card.Content>
      </Card>
    </View>
</SafeAreaView>
```

```
const styles = StyleSheet.create({
  flex: 1,
  backgroundColor: '#f5f5f5',
 },
header: {
   padding: 20,
   backgroundColor: '#4f8ef7',
 welcomeText: {
  fontSize: 24,
   fontWeight: 'bold',
   color: 'white',
 },
 subtitle: {
  fontSize: 16,
   color: 'white',
  marginTop: 5,
 section: {
 padding: 20,
 },
 quickHelpSection: {
   padding: 20,
   backgroundColor: 'white',
 sectionTitle: {
   fontSize: 18,
   fontWeight: 'bold',
  marginBottom: 15,
 },
 sectionTitleContainer: {
  flexDirection: 'row',
   justifyContent: 'space-between',
   alignItems: 'center',
  marginBottom: 15,
 },
 seeAllText: {
   color: '#4f8ef7',
   fontWeight: '500',
 quickHelpGrid: {
   flexDirection: 'row',
   flexWrap: 'wrap',
   justifyContent: 'space-between',
 quickHelpItem: {
```

```
width: '48%',
  backgroundColor: '#f0f7ff',
  borderRadius: 10,
  padding: 15,
  marginBottom: 15,
  flexDirection: 'row',
  alignItems: 'center',
iconContainer: {
  width: 40,
  height: 40,
  borderRadius: 20,
  backgroundColor: '#e6f0ff',
  justifyContent: 'center',
  alignItems: 'center',
 marginRight: 10,
},
  fontWeight: '500',
videoCallCard: {
  borderRadius: 10,
  elevation: 2,
videoCallButton: {
backgroundColor: '#4f8ef7',
},
quideCard: {
  marginBottom: 10,
  borderRadius: 10,
 elevation: 2,
guideCardContent: {
  flexDirection: 'row',
  alignItems: 'center',
},
guideIconContainer: {
 width: 40,
  height: 40,
 borderRadius: 20,
  backgroundColor: '#e6f0ff',
  justifyContent: 'center',
  alignItems: 'center',
 marginRight: 15,
guideTextContainer: {
 flex: 1,
```

```
voiceCard: {
 borderRadius: 10,
  elevation: 2,
  backgroundColor: '#f0f7ff',
 voiceCardContent: {
   flexDirection: 'row',
 alignItems: 'center',
 voiceTextContainer: {
 flex: 1,
  width: 60,
  height: 60,
  borderRadius: 30,
   backgroundColor: '#4f8ef7',
 alignItems: 'center',
});
export default HomeScreen;
import React, { useState } from 'react';
import { View, Text, StyleSheet, ScrollView, TouchableOpacity, TextInput }
from 'react-native';
import { Card, Chip, Searchbar, FAB } from 'react-native-paper';
import { Ionicons } from '@expo/vector-icons';
import { SafeAreaView } from 'react-native-safe-area-context';
const GuidesScreen = ({ navigation }) => {
 const [selectedCategory, setSelectedCategory] = useState(null);
 const categories = [
   { id: 1, name: 'All', icon: 'apps' },
   { id: 2, name: 'Email', icon: 'mail' },
   { id: 3, name: 'Social Media', icon: 'people' },
   { id: 4, name: 'Internet', icon: 'globe' },
   { id: 5, name: 'Smartphone', icon: 'phone-portrait' },
  { id: 6, name: 'Computer', icon: 'desktop' },
const guides = [
```

```
'Easy', steps: 5, icon: 'mail' },
   { id: 2, title: 'Using Facebook', category: 'Social Media',
difficulty: 'Medium', steps: 8, icon: 'logo-facebook' },
   { id: 3, title: 'Setting Up Gmail', category: 'Email', difficulty:
'Easy', steps: 4, icon: 'mail' },
   { id: 4, title: 'Browsing the Internet Safely', category: 'Internet',
difficulty: 'Medium', steps: 6, icon: 'globe' },
  { id: 5, title: 'Smartphone Basics', category: 'Smartphone',
difficulty: 'Easy', steps: 7, icon: 'phone-portrait' },
  { id: 6, title: 'How to Download Apps', category: 'Smartphone',
difficulty: 'Easy', steps: 3, icon: 'download' },
   { id: 7, title: 'Using Video Calls', category: 'Computer', difficulty:
'Medium', steps: 5, icon: 'videocam' },
   { id: 8, title: 'Computer File Management', category: 'Computer',
difficulty: 'Hard', steps: 10, icon: 'folder' },
1;
 const filteredGuides = guides.filter(guide => {
  const matchesSearch =
quide.title.toLowerCase().includes(searchQuery.toLowerCase());
   const matchesCategory = selectedCategory === null || selectedCategory
  : 'All' || guide.category === selectedCategory;
  return matchesSearch && matchesCategory;
return (
   <SafeAreaView style={styles.container}>
     <Searchbar
       placeholder="Search guides..."
      onChangeText={setSearchQuery}
       value={searchQuery}
      style={styles.searchBar}
     <ScrollView horizontal style={styles.categoriesContainer}</pre>
showsHorizontalScrollIndicator={false}>
       {categories.map(category => (
         <Chip
           key={category.id}
color={selectedCategory === category.name ? 'white' : '#4f8ef7'} />}
           selected={selectedCategory === category.name}
           onPress={() => setSelectedCategory(category.name === 'All' ?
null : category.name) }
           style={[
            styles.categoryChip,
```

```
selectedCategory === category.name &&
styles.selectedCategoryChip
            ] }
            textStvle={[
              selectedCategory === category.name &&
styles.selectedCategoryChipText
            {category.name}
         </Chip>
        ))}
      </scrollView>
      <ScrollView style={styles.guidesContainer}>
        {filteredGuides.map(guide => (
          <TouchableOpacity
            key={guide.id}
            onPress={() => navigation.navigate('GuideDetail', { id:
guide.id, title: guide.title }) }
            <Card style={styles.guideCard}>
              <Card.Content style={styles.guideCardContent}>
                <View style={styles.guideIconContainer}>
                  <Ionicons name={quide.icon} size={24} color="#4f8ef7" />
                </View>
                <View style={styles.guideTextContainer}>
                  <Text style={styles.guideTitle}>{guide.title}</Text>
                  <View style={styles.guideMetaContainer}>
                     <Chip style={styles.metaChip}</pre>
textStyle={styles.metaChipText}>{guide.category}</Chip>
                   <Chip style={styles.metaChip}</pre>
textStyle={styles.metaChipText}>{guide.difficulty}</Chip>
                    <Chip style={styles.metaChip}</pre>
textStyle={styles.metaChipText}>{guide.steps}                                steps</Chip>
                  </View>
                </View>
              </Card.Content>
            </Card>
          </TouchableOpacity>
        ) ) }
    </ScrollView>
    <FAB
        style={styles.fab}
        icon="plus"
```

```
onPress={() => navigation.navigate('CreateGuide')}
       label="Create Guide"
</SafeAreaView>
);
const styles = StyleSheet.create({
container: {
  flex: 1,
 backgroundColor: '#f5f5f5',
 searchBar: {
   margin: 16,
 borderRadius: 10,
 categoriesContainer: {
   paddingHorizontal: 16,
  marginBottom: 10,
categoryChip: {
   marginRight: 8,
   borderColor: '#4f8ef7',
   borderWidth: 1,
selectedCategoryChip: {
  backgroundColor: '#4f8ef7',
categoryChipText: {
  color: '#4f8ef7<u>'</u>,
selectedCategoryChipText: {
 color: 'white',
 guidesContainer: {
  padding: 16,
 guideCard: {
  marginBottom: 12,
   borderRadius: 10,
  elevation: 2,
guideCardContent: {
  flexDirection: 'row',
   alignItems: 'center',
```

```
guideIconContainer: {
   height: 50,
  borderRadius: 25,
   backgroundColor: '#e6f0ff',
   alignItems: 'center',
   marginRight: 15,
 guideTextContainer: {
 flex: 1,
 guideTitle: {
   fontSize: 16,
   fontWeight: 'bold',
   marginBottom: 5,
 },
    flexDirection: 'row',
   flexWrap: 'wrap',
 metaChip: {
  marginRight: 5,
   marginBottom: 5,
   height: 24,
  backgroundColor: '#f0f0f0',
 },
 metaChipText: {
 },
 fab: {
 position: 'absolute',
  margin: 16,
 right: 0,
  backgroundColor: '#4f8ef7',
 },
export default GuidesScreen;
import React from 'react';
import { View, Text, StyleSheet, ScrollView, Image } from 'react-native';
import { Button, Divider, List, Card } from 'react-native-paper';
import { Ionicons } from '@expo/vector-icons';
import { SafeAreaView } from 'react-native-safe-area-context';
```

```
const GuideDetailScreen = ({ route, navigation }) => {
 const { id, title } = route.params;
  ^{\prime}/ Mock data for the guide
 const guide = {
   id,
   title,
  category: 'Email',
   difficulty: 'Easy',
   steps: [
    { id: 1, title: 'Open your email app', description: 'Find and tap
the email app icon on your device' },
     { id: 2, title: 'Create a new email', description: 'Look for the
compose or new message button' },
     { id: 3, title: 'Add a recipient', description: 'Type the email
address of the person you want to contact' },
     { id: 4, title: 'Write your message', description: 'Enter a subject
and compose your email message' },
    { id: 5, title: 'Send your email', description: 'Tap the send button
to deliver your message' },
   ],
   description: 'Learn how to send an email step-by-step, from opening
your email app to sending your message.',
   createdBy: 'Tech Helper Team',
   imageUrl: null,
 };
 return (
    <SafeAreaView style={styles.container}>
      <ScrollView>
       <Card style={styles.headerCard}>
         <Card.Content>
           <Text style={styles.title}>{guide.title}</Text>
             <View style={styles.metaItem}>
               <Ionicons name="bookmark" size={16} color="#4f8ef7" />
              </View>
             <View style={styles.metaItem}>
                <Ionicons name="speedometer" size={16} color="#4f8ef7" />
               <Text style={styles.metaText}>{guide.difficulty}</Text>
             </View>
              <View style={styles.metaItem}>
              <Ionicons name="list" size={16} color="#4f8ef7" />
               <Text style={styles.metaText}>{guide.steps.length}
steps</Text>
```