EXPERIMENT NO : 03

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Class:- D15A   **Roll:No : 54**

AIM: - To include icons, images, fonts in Flutter app.

Theory: -

Flutter is a versatile open-source UI framework , which allows developers to build natively compiled applications for mobile, web, and desktop platforms from a single codebase. One of the key strengths of Flutter is its flexibility in creating highly customizable UIs. This practical focuses on incorporating essential visual elements—icons, images, and custom fonts—into a Flutter application. These elements enhance the visual appeal and usability of the app, providing an engaging experience for users.

A flutter app when built has both assets (resources) and code. Assets are available and deployed during runtime. The asset is a file that can include static data, configuration files, icons, and images. The Flutter app supports many image formats, such as JPEG, WebP, PNG, GIF, animated WebP/GIF, BMP, and WBMP.

Visual elements play a significant role in app development.

- **Enhanced User Experience**: Images and icons make your app visually appealing and user-friendly.

- **Information Conveyance**: They convey information quickly and intuitively. A well-chosen icon can replace lengthy text.

- **Branding**: Custom icons and images reinforce your app's branding, making it memorable.

➢ **Adding Icons in Flutter**

Flutter provides built-in material design icons through the Icons class. Custom icons can also be added using third-party packages such as flutter_launcher_icons and font_awesome_flutter.

```
Icon(
  Icons.home,
  size: 40,
);
```

➢ **Adding Images in Flutter**

Flutter supports images from three sources:

1. **Assets** (Stored locally in the project)

   - Place the image inside the assets/images folder in the project.
   - Declare the image in pubspec.yaml

     flutter:
      assets:
        - assets/images/sample.png

   - Display the image in the app

     Image.asset('assets/images/sample.png');

2. **Network** (Fetched from the internet)

   Displaying images from the internet or network is very simple. Flutter provides a built-in method Image.network to work with images from a URL. The Image.network method also allows you to use some optional properties, such as height, width, color, fit, and many more.

   Image.network('https://example.com/sample.jpg');

3. **Memory or File** (Stored on the device)

➢ **Adding Custom Fonts in Flutter**

By default, Flutter uses the Roboto font, but custom fonts can be added for a unique UI.

   - Download the font and place it in the assets/fonts/ folder.
   - Declare the font in pubspec.yaml
   - Use the font in the app
     Text(
      'Custom Font Example',
      style: TextStyle(fontFamily: 'CustomFont', fontSize: 24),
     );

Code: - home_screen.dart

```dart
import 'package:flutter/material.dart';
import 'package:intl/intl.dart';
import 'details_form_screen.dart';

class HomeScreen extends StatefulWidget {
  @override
  _HomeScreenState createState() => _HomeScreenState();
}

class _HomeScreenState extends State<HomeScreen> {
  int _selectedIndex = 0;
  String _selectedDate = "Select date";

  void _onBottomNavTapped(int index) {
    setState(() {
      _selectedIndex = index;
    });
  }

  Future<void> _selectDate(BuildContext context) async {
    DateTimeRange? picked = await showDateRangePicker(
    context: context,
      firstDate: DateTime.now(),
      lastDate: DateTime(2030),
    );

    if (picked != null) {
      setState(() {
        _selectedDate =
          "${DateFormat('E dd MMM').format(picked.start)} –
${DateFormat('E dd MMM').format(picked.end)}";
      });
    }
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.grey[100],
      appBar: AppBar(
        backgroundColor: Colors.blue[900],
        title: Text(
          'Booking.com',
          style: TextStyle(
            color: Colors.white, fontWeight: FontWeight.bold,
fontSize: 18),
        ),
        actions: [
          IconButton(
            icon: Icon(Icons.notifications, color: Colors.white),
            onPressed: () {},
          ),
          IconButton(
            icon: Icon(Icons.account_circle, color:
Colors.white),
            onPressed: () {},
          ),
        ],
      ),
      body: SingleChildScrollView(
        child: Padding(
          padding: const EdgeInsets.all(12),
          child: Column(
            crossAxisAlignment: CrossAxisAlignment.start,
            children: [
              // **Category Title**
              Row(
              mainAxisAlignment:
MainAxisAlignment.center,
                children: [
                  Icon(Icons.hotel, color: Colors.blue[900],
size: 24),
                  SizedBox(width: 8),
                  Text(
                    "Find your stays",
                    style: TextStyle(
                      color: Colors.blue[900],
                      fontSize: 14,
                      fontWeight: FontWeight.bold,
                    ),
                  ),
                ],
              ),

              SizedBox(height: 15),

              // **Search Section**
              Container(
                padding: EdgeInsets.all(12),
                decoration: BoxDecoration(
                  borderRadius: BorderRadius.circular(10),
                  border: Border.all(color: Colors.orange,
width: 2),
                  color: Colors.white,
                ),
                child: Column(
                  children: [
                    _buildSearchField(Icons.search, "Enter your
destination"),
                    GestureDetector(
                      onTap: () => _selectDate(context),
                      child: _buildSearchField(
                      Icons.calendar_today,
                        _selectedDate,
```

```
SizedBox(height: 10),
          ElevatedButton(
            style: ElevatedButton.styleFrom(
              backgroundColor: Colors.blue[900],
              padding:
                  EdgeInsets.symmetric(vertical: 12, horizontal:
80),
            ),
            onPressed: () {
              Navigator.push(
              context,
              MaterialPageRoute(
                  builder: (context) => DetailsFormScreen()),
              );
            },
            child: Text("Search",
                style: TextStyle(color: Colors.white, fontSize:
14)),
          ),
        ],
      ),
    ),

        SizedBox(height: 15),

        // **Discount Section**
        Text(
          "Exclusive Discounts",
          style: TextStyle(fontSize: 14, fontWeight: FontWeight
.bold),
        ),
        SizedBox(height: 8),
        SizedBox(
          height: 110,
          child: ListView(
            scrollDirection: Axis.horizontal,
            children: [
              _buildDiscountCard(
                  "10% discounts on stays", "Enjoy discounts
worldwide"),
              _buildDiscountCard(
                  "10% off rental cars", "Save on select rental cars"),
              _buildDiscountCard(
                  "Exclusive flight deals", "Best fares for
members"),
            ],
          ),
        ),

        SizedBox(height: 15),

        // **Deals Section**
        Text(
          "Deals for the weekend",
```

```
style: TextStyle(fontSize: 14, fontWeight:
 FontWeight.bold),
        ),
        Text(
          "Save on stays for 31 January - 2 February",
          style: TextStyle(fontSize: 12),
        ),

 SizedBox(height: 8),
        SizedBox(
          height: 160,
          child: ListView(
            scrollDirection: Axis.horizontal,
            children: [
              _buildDealCard(
                "Paris, France",
                "Starting from \$120/night",
                "https://thumbs.dreamstime.com/b/paris-
eiffel-tower-river-seine-sunset-france-one-most-iconic-
landmarks-107376702.jpg",
              ),
              _buildDealCard(
                "New York, USA",
                "Starting from \$150/night",
                "https://t3.ftcdn.net/jpg/02/09/70/56/360_
F_209705645_b78HGJI1i1mxqLwMYA7z1m3VvCxgx
JFO.jpg",
              ),
              _buildDealCard(
                "Tokyo, Japan",
                "Starting from \$130/night",
                "https://media.istockphoto.com/id/484915
982/photo/akihabara-
tokyo.jpg?s=612x612&w=0&k=20&c=kbCRYJS5vZu
F4jLB3y4-apNebcCEkWnDbKPpxXdf9Cg=",
              ),
            ],
          ),
        ),
      ),
    ],
  ),
),

    // **Bottom Navigation Bar**
    bottomNavigationBar: BottomNavigationBar(
    backgroundColor: Colors.white, // Set background
color to white

    currentIndex: _selectedIndex,
    onTap: _onBottomNavTapped,
    selectedItemColor: Colors.blue[900],
    unselectedItemColor: Colors.grey,
    type: BottomNavigationBarType.fixed,
```

```dart
          icon: Icon(Icons.person, size: 22), label: "My account"),
      ],
    ),
  );
  }
Widget _buildSearchField(IconData icon, String hintText,
    {bool isReadOnly = false}) {
  return Padding(
    padding: EdgeInsets.symmetric(vertical: 4),
    child: TextField(
      readOnly: isReadOnly,
      decoration: InputDecoration(
        prefixIcon: Icon(icon, color: Colors.black54, size: 20),
        hintText: hintText,
        hintStyle: TextStyle(fontSize: 12),
        border: OutlineInputBorder(borderRadius:
BorderRadius.circular(5)),
      ),
    ),
  );
  }

  Widget _buildDiscountCard(String title, String subtitle) {
    return Container(
      width: 150,
      margin: EdgeInsets.only(right: 8),
      padding: EdgeInsets.all(8),
      decoration: BoxDecoration(
      color: Colors.white,
        border: Border.all(color: Colors.blue),
        borderRadius: BorderRadius.circular(8),
      ),
      child: Column(
      crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Text(title,
            style: TextStyle(fontWeight: FontWeight.bold,
fontSize: 12)),
          SizedBox(height: 4),
          Text(subtitle, style: TextStyle(fontSize: 10)),
        ],
      ),
    );
  }

  Widget _buildDealCard(String location, String price,
String imageUrl) {
    return Container(
      width: 180,
      margin: EdgeInsets.only(right: 8),
```

```dart
padding: EdgeInsets.all(8),
    decoration: BoxDecoration(
    color: Colors.white,
      borderRadius: BorderRadius.circular(8),


  boxShadow: [


  BoxShadow(color: Colors.grey.withOpacity(0.2),
blurRadius: 4)
      ],
    ),
    child: Column(
      crossAxisAlignment: CrossAxisAlignment.start,
      children: [
        ClipRRect(


borderRadius: BorderRadius.circular(8),

  child: Image.network(
        imageUrl,
        height: 80,
        width: double.infinity,
        fit: BoxFit.cover,
      ),
      ),
      SizedBox(height: 4),
      Text(location,
        style: TextStyle(fontWeight: FontWeight.bold,
fontSize: 12)),
      SizedBox(height: 4),
      Text(price, style: TextStyle(fontSize: 11, color:
Colors.black54)),
      ],
    ),
  );
  }
}
```

Code : welcome_screen.dart

```dart
import 'package:flutter/material.dart';
import 'package:google_fonts/google_fonts.dart';
import '../core/routes.dart';
import '../widgets/custom_button.dart';

class WelcomeScreen extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      appBar: AppBar(
        backgroundColor: const Color(0xFF003580),
// Booking.com Blue
        elevation: 0,
        title: Text(
        "Booking.com",
          style: GoogleFonts.montserrat(
            fontSize: 20,
            fontWeight: FontWeight.w600,
            color: Colors.white,
          ),
        ),
        centerTitle: true,
        leading: IconButton(
          icon: const Icon(Icons.arrow_back,
            color: Colors.white), // Back arrow in
white
          onPressed: () => Navigator.pop(context), //
Navigate back
        ),
      ),
      body: SingleChildScrollView(
        child: Padding(
        padding: const
EdgeInsets.symmetric(horizontal: 25, vertical: 40),
        child: Column(
          crossAxisAlignment:
CrossAxisAlignment.start,
          children: [
            // Title
            Text(
             "Register here",
            ),
            const SizedBox(height: 30),

              border: Border.all(color:
Colors.grey.shade400),
            ),
            child: TextField(
              decoration: InputDecoration(
                labelText: "Enter your name",
                labelStyle: GoogleFonts.montserrat(
```

```dart
        const SizedBox(height: 5),
          Text(
           "We'll use this to create an account if you
don't have one yet.",
            style: GoogleFonts.montserrat(
              fontSize: 14,
              color: Colors.grey[600],
            ),
          ),
          const SizedBox(height: 30),

          // Email Entry Box
          Container(
          padding: const
EdgeInsets.symmetric(horizontal: 12),
            decoration: BoxDecoration(
              borderRadius: BorderRadius.circular(8),
              border: Border.all(color:
Colors.grey.shade400),
            ),
            child: TextField(
              decoration: InputDecoration(
                labelText: "Enter your name",
                labelStyle: GoogleFonts.montserrat(
                  fontSize: 14, color: Colors.grey[600]),
                border: InputBorder.none,
              ),
            ),
          ),
          const SizedBox(height: 30),

          // Continue Button
          CustomButton(
          text: "Continue",
            onTap: () => Navigator.pushNamed(context,
Routes.signUp),
            backgroundColor: const Color(0xFF003580),
            textColor: Colors.white,
          ),
          const SizedBox(height: 40),
```

```
            Row(
              children: [
                Expanded(child: Divider(color: Colors.grey.shade400)),
                Padding(
                  padding: const EdgeInsets.symmetric(horizontal: 10),
                  child: Text("OR",
                      style: GoogleFonts.montserrat(
                          fontSize: 14, color: Colors.black87)),
                ),
                Expanded(child: Divider(color: Colors.grey.shade400)),
              ],
            ),
            const SizedBox(height: 30),

            // Continue with Google
            CustomButton(
              text: "Continue with Google",
              onTap: () {},
              isOutlined: true,
              textColor: Colors.black,
              borderColor: Colors.grey.shade400,
              iconPath: "assets/images/google.png", // Add Google icon
            ),
            const SizedBox(height: 10),

            // Continue with Facebook
            CustomButton(
              text: "Continue with Facebook",
              iconPath: "assets/images/facebook.png", // Add Facebook icon
            ),
            const SizedBox(height: 10),
            Center(
              child: TextButton(
                onPressed: () => Navigator.pushNamed(context, Routes.signIn),
                child: Text(
                  "Already have an account? Sign In",
                  style: GoogleFonts.montserrat(
                  fontSize: 14,
                    fontWeight: FontWeight.w500,
                    color: Colors.blue,
),
),
}
}
```

Code: hotel_screen.dart

```dart
import 'package:flutter/material.dart';
import 'package:google_fonts/google_fonts.dart';
import 'package:booking/core/theme.dart';
import 'package:booking/core/routes.dart';

class SplashScreen extends StatefulWidget {
  @override
  _SplashScreenState createState() => _SplashScreenState();
}

class _SplashScreenState extends State<SplashScreen>
    with SingleTickerProviderStateMixin {
  late AnimationController _controller;
  late Animation<double> _fadeInAnimation;

  @override
  void initState() {
    super.initState();

    _controller = AnimationController(
      vsync: this,
      duration: const Duration(milliseconds: 1200),
    );

    _fadeInAnimation = Tween<double>(begin: 0, end: 1).animate(_controller);

    _controller.forward();

    Future.delayed(const Duration(seconds: 3), () {
      Navigator.pushReplacementNamed(context, Routes.welcome);
    });
  }
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: AppColors.primaryColor,
      body: SafeArea(
        child: Center(
          child: FadeTransition(
            opacity: _fadeInAnimation,
            child: Text(
            "Booking.com",
              style: GoogleFonts.openSans(
                fontSize: 27, // Font size for visibility
                fontWeight: FontWeight.bold, // Using Open Sans Bold
                color: Colors.white,
                letterSpacing: 1.2, // Improved spacing for readability
              )
    );
  } @override
  void dispose() {
    _controller.dispose();
    super.dispose();
  }
}
```
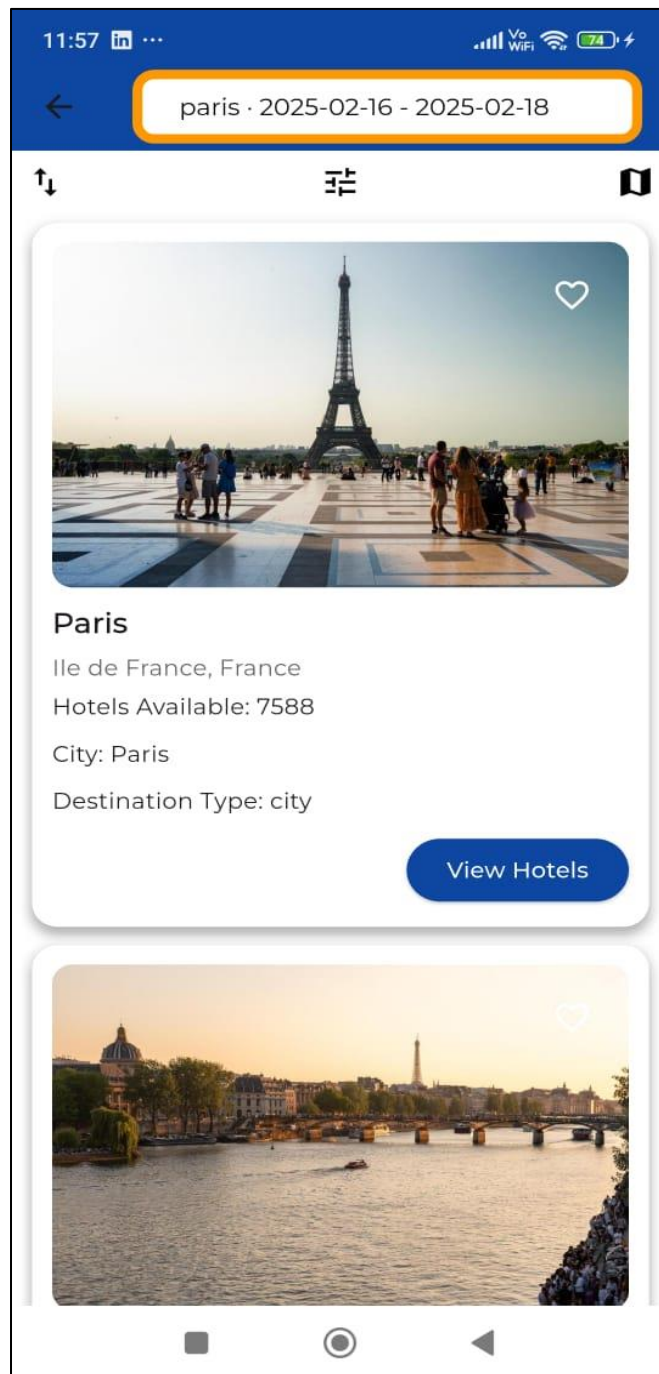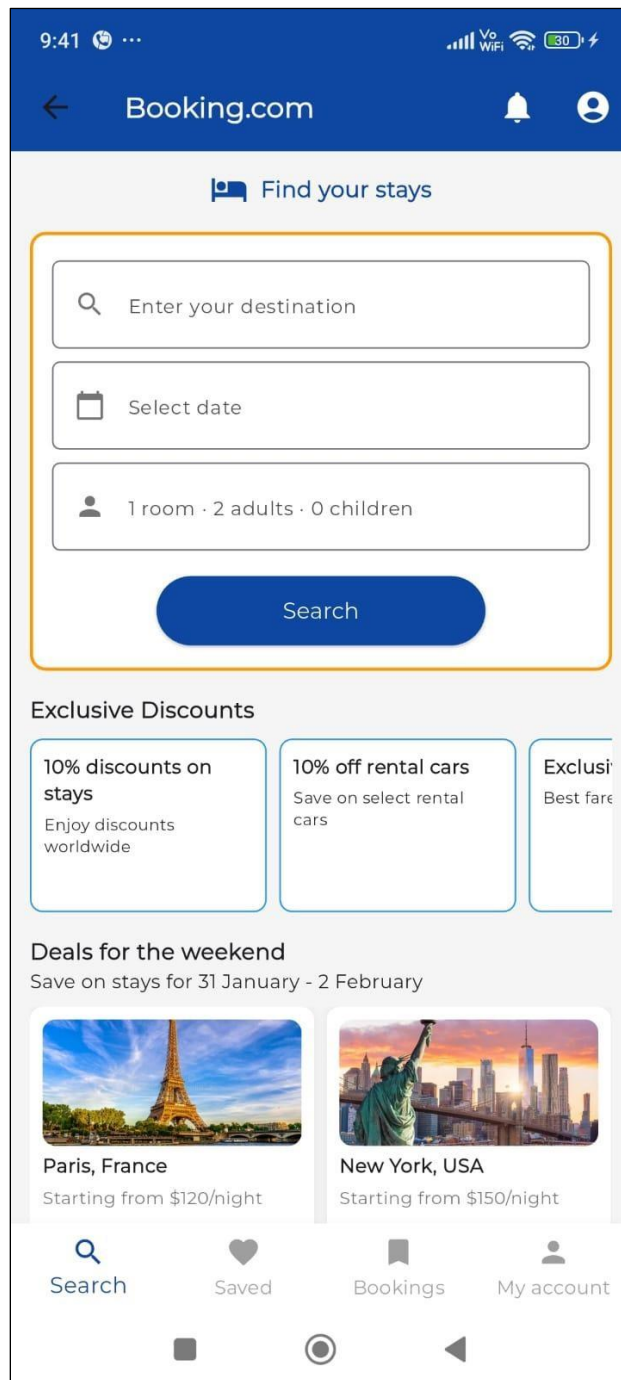
OUTPUT :

12:30

Booking.com

Find your stays

🔍 paris

📅 Mon 17 Feb - Thu 20 Feb

Select Room Details

Rooms: 1 ▼

Adults: 4 ▼

Children: 0 ▼

Cancel   OK

Exclu...

10% ...
stays...   Exclusi...
Enjoy...   Best fare
world...

Deals for the weekend
Save on stays for 31 January - 2 February

Paris, France
Starting from $120/night

New York, USA
Starting from $150/night

🔍 Search   ♥ Saved   🔖 Bookings   👤 My account
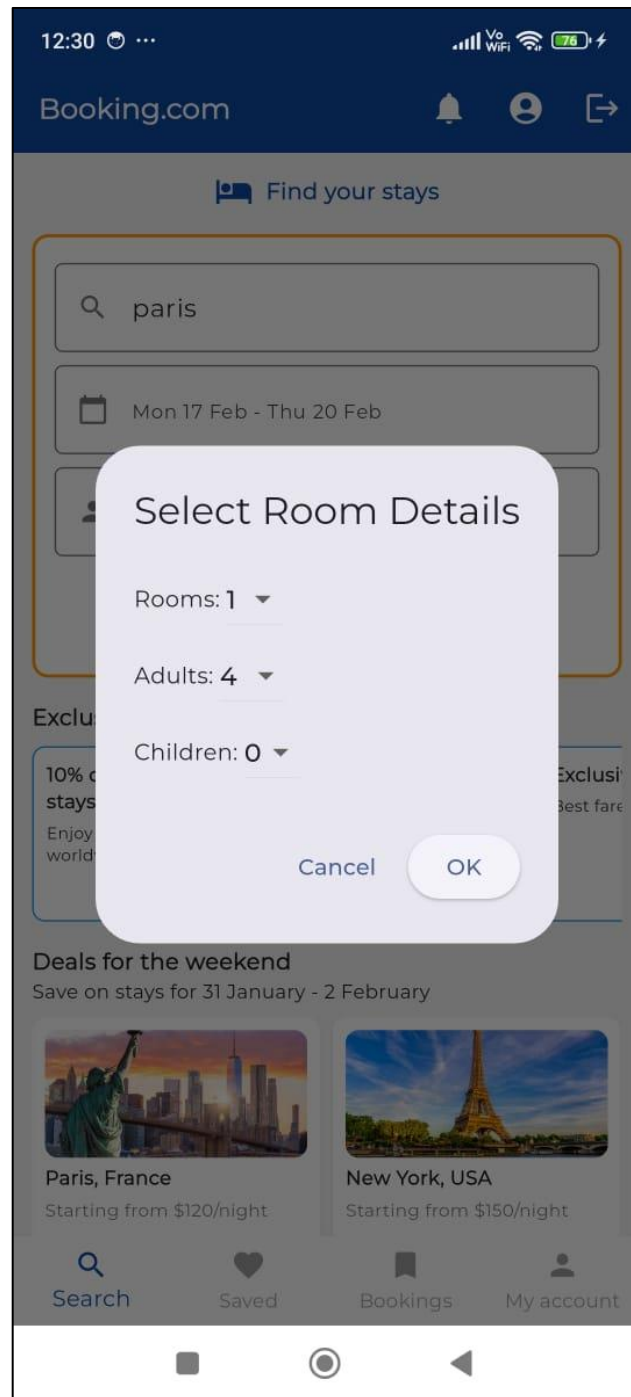
X   Save

Select range

Feb 17 – Feb 19   ✏️

S	M	T	W	T	F	S

February 2025

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	**17**	18	**19**	20	21	22
23	24	25	26	27	28	

March 2025

						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29