**EX NO 1: APPLICATION USING GUI COMPONENTS, FONT AND COLOURS**

**AIM:** To generate a hospital form for patients using GUI components, fonts and colours.

**DESCRIPTION:**

1. **Scroll View:**

Used to scroll through the elements in the layout, to have a Linear layout containing elements in it.

1. **Linear Layout:**

Used to place other views, available in 2 orientations, horizontal and vertical.

1. **Text View:**

Used to display text to the user. Has properties like the font and style etc.

1. **Edit Text:**

Used to accept text from the user. Can accept different types like text (specific variations), numbers and so on.

1. **Date Picker:**

Widget used to select a date, spinner and calendar view available.

1. **Radio Group:**

Has a group of radio buttons, acceptable choices can be either one or more than one.

1. **Radio Button:**

Displays different options available, can be either checked or unchecked.

1. **Spinner:**

Used to show various options as a top-down list when clicked upon.

1. **Time Picker:**

Allows time to be selected, can be done as a spinner or a clock.

1. **Check Box:**

Allows user to check options which are applicable to them, can allow one or multiple options.

1. **Buttons:**

They can be clicked to lead to different pages, or different functionalities can be assigned to them.

**XML CODE:**

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical"

tools:context=".MainActivity">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:gravity="center"

android:id="@+id/hospitalHeader"

android:text="HOSPITAL REGISTRATION FORM\n"

android:textAlignment="center"

android:textColor="@android:color/black"

android:textSize="20sp"

android:textStyle="bold"/>

<ScrollView

android:layout\_width="match\_parent"

android:layout\_height="match\_parent">

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical" >

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/name"

android:text="Name: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<EditText

android:id="@+id/patientname"

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content"

android:inputType="textPersonName"

android:ems="15"

android:text=""/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/address"

android:text="Address: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<EditText

android:id="@+id/addressval"

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content"

android:inputType="textPersonName"

android:ems="14"

android:text=""/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/age"

android:text="Age: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<EditText

android:id="@+id/ageval"

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content"

android:inputType="number"

android:ems="3"

android:text=""/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:id="@+id/dob"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:fontFamily="sans-serif"

android:text="Date of Birth: "

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp" />

<DatePicker

android:layout\_width="wrap\_content"

android:layout\_height="390dp"

android:datePickerMode="calendar"

android:isScrollContainer="true"

android:layout\_marginLeft="90px"

android:layout\_marginTop="20px"/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/gender"

android:text="\n\nGender: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<RadioGroup

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="vertical">

<RadioButton android:id="@+id/male"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Male"/>

<RadioButton android:id="@+id/female"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Female"/>

<RadioButton android:id="@+id/other"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Other"/>

</RadioGroup>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/phone"

android:text="Phone number: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<EditText

android:id="@+id/number"

android:layout\_height="wrap\_content"

android:layout\_width="wrap\_content"

android:inputType="phone"

android:ems="8"

android:text=""/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<TextView

android:id="@+id/maritalstatus"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:fontFamily="sans-serif"

android:text="Marital Status: "

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp" />

<Spinner

android:id="@+id/maritalstats"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" />

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/reg\_time"

android:text="Registration time: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<TimePicker

android:id="@+id/time"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:timePickerMode="spinner"></TimePicker>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/addiction"

android:text="Addiction: "

android:fontFamily="sans-serif"

android:textColor="@color/colorPrimaryDark"

android:textSize="15sp"/>

<CheckBox

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/smokes"

android:text="Smoking"/>

<CheckBox

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/drinks"

android:text="Drinking"/>

</LinearLayout>

<LinearLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:orientation="horizontal">

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/submit"

android:text="SUBMIT"/>

<Button

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:id="@+id/reset"

android:text="RESET"/>

</LinearLayout>

</LinearLayout>

</ScrollView>

</LinearLayout>

**JAVA CODE:**

package com.example.android.ex1;

import android.support.v7.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.ArrayAdapter;

import android.widget.Spinner;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Spinner spinner = (Spinner) findViewById(R.id.maritalstats);

// Create an ArrayAdapter using the string array and a default spinner layout

ArrayAdapter<CharSequence> adapter = ArrayAdapter.createFromResource(this,

R.array.marital\_array, android.R.layout.simple\_spinner\_item);

// Specify the layout to use when the list of choices appears

adapter.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);

// Apply the adapter to the spinner

spinner.setAdapter(adapter);

}

}

**STRINGS.XML FOR SPINNER:**

<resources>

<string name="app\_name">Ex1</string>

<string-array name="marital\_array">

<item>Married</item>

<item>Unmarried</item>

</string-array>

</resources>

**OUTPUT SCREENSHOTS:**

