Questions\_input:

package com.example.assignmate;  
  
import android.Manifest;  
import android.app.Activity;  
import android.content.ContentResolver;  
import android.content.Intent;  
import android.content.pm.PackageManager;  
import android.net.Uri;  
import android.os.Bundle;  
import android.os.Environment;  
import android.text.Editable;  
import android.text.Html;  
import android.text.TextWatcher;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
import androidx.activity.result.ActivityResult;  
import androidx.activity.result.ActivityResultCallback;  
import androidx.activity.result.ActivityResultLauncher;  
import androidx.activity.result.contract.ActivityResultContracts;  
import androidx.annotation.NonNull;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.app.ActivityCompat;  
  
import com.itextpdf.text.Document;  
import com.itextpdf.text.Element;  
import com.itextpdf.text.Font;  
import com.itextpdf.text.Paragraph;  
import com.itextpdf.text.pdf.BaseFont;  
import com.itextpdf.text.pdf.PdfReader;  
import com.itextpdf.text.pdf.PdfWriter;  
import com.itextpdf.text.pdf.parser.PdfTextExtractor;  
  
import java.io.File;  
import java.io.FileOutputStream;  
import java.io.InputStream;  
import java.util.ArrayList;  
import java.util.Collections;  
import java.util.List;  
import java.util.Objects;  
  
public class questions\_input extends AppCompatActivity {  
  
 Button btSelect;  
 TextView tvUri, tvPath;  
 ActivityResultLauncher<Intent> resultLauncher;  
 private EditText chapters, name,Department,sub\_name;  
  
 private Button pickPdfButton,pickPdfButton2,pickPdfButton3,pickPdfButton4,pickPdfButton5,mergepdf,back;  
 private TextView selectedPdfTextView;  
  
 private Uri pdfUri;  
  
 private String path[];  
 private ActivityResultLauncher<Intent> pdfPickerLauncher;  
  
 static ArrayList<String> *list\_path* = new ArrayList<String>();  
  
 public void toastMsg(String msg) {  
 Toast.*makeText*(this, msg, Toast.*LENGTH\_SHORT*).show();  
 }  
 TextWatcher textWatcher = new TextWatcher() {  
 @Override  
 public void beforeTextChanged(CharSequence s, int start, int count, int after) {  
 // this function is called before text is edited  
 }  
  
 @Override  
 public void onTextChanged(CharSequence s, int start, int before, int count) {  
  
 if (s == null || s.toString().trim().isEmpty()) {  
 // Prevent crash when text is cleared  
 return;  
 }  
  
  
 switch (Integer.*parseInt*(String.*valueOf*(chapters.getText())))  
 {  
 case 0:  
 pickPdfButton.setEnabled(false);  
 pickPdfButton2.setEnabled(false);  
 pickPdfButton3.setEnabled(false);  
 pickPdfButton4.setEnabled(false);  
 pickPdfButton5.setEnabled(false);  
 break;  
 case 1:  
 pickPdfButton.setEnabled(true);  
 pickPdfButton2.setEnabled(false);  
 pickPdfButton3.setEnabled(false);  
 pickPdfButton4.setEnabled(false);  
 pickPdfButton5.setEnabled(false);  
 break;  
 case 2:  
  
 pickPdfButton.setEnabled(true);  
 pickPdfButton2.setEnabled(true);  
 pickPdfButton3.setEnabled(false);  
 pickPdfButton4.setEnabled(false);  
 pickPdfButton5.setEnabled(false);  
 break;  
 case 3:  
 pickPdfButton.setEnabled(true);  
 pickPdfButton2.setEnabled(true);  
 pickPdfButton3.setEnabled(true);  
 pickPdfButton4.setEnabled(false);  
 pickPdfButton5.setEnabled(false);  
 break;  
 case 4:  
 pickPdfButton.setEnabled(true);  
 pickPdfButton2.setEnabled(true);  
 pickPdfButton3.setEnabled(true);  
 pickPdfButton4.setEnabled(true);  
 pickPdfButton5.setEnabled(false);  
 break;  
 case 5:  
 pickPdfButton.setEnabled(true);  
 pickPdfButton2.setEnabled(true);  
 pickPdfButton3.setEnabled(true);  
 pickPdfButton4.setEnabled(true);  
 pickPdfButton5.setEnabled(true);  
 break;  
 default:  
 toastMsg("Oops! Please Enter Valid Chapters.");  
 pickPdfButton.setEnabled(false);  
 pickPdfButton2.setEnabled(false);  
 pickPdfButton3.setEnabled(false);  
 pickPdfButton4.setEnabled(false);  
 pickPdfButton5.setEnabled(false);  
 break;  
  
 }  
 }  
  
 @Override  
 public void afterTextChanged(Editable s) {  
 // this function is called after text is edited  
 }  
 };  
  
  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_questions\_input*);  
  
  
 pickPdfButton = findViewById(R.id.*pick\_pdf\_button1*);  
 pickPdfButton2 = findViewById(R.id.*pick\_pdf\_button2*);  
 pickPdfButton3 = findViewById(R.id.*pick\_pdf\_button3*);  
 pickPdfButton4 = findViewById(R.id.*pick\_pdf\_button4*);  
 pickPdfButton5 = findViewById(R.id.*pick\_pdf\_button5*);  
 back = findViewById(R.id.*BackButton*);  
 mergepdf = findViewById(R.id.*merge\_pdf*);  
  
 chapters = findViewById(R.id.*editTextText4*);  
 name = findViewById(R.id.*editTextText*);  
 sub\_name = findViewById(R.id.*editTextText3*);  
 Department = findViewById(R.id.*editTextText2*);  
  
  
 pickPdfButton.setEnabled(false);  
 pickPdfButton2.setEnabled(false);  
 pickPdfButton3.setEnabled(false);  
 pickPdfButton4.setEnabled(false);  
 pickPdfButton5.setEnabled(false);  
  
 chapters.addTextChangedListener(textWatcher);  
  
  
 pickPdfButton2.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 openPdfPicker();  
  
 }  
 });  
  
 pickPdfButton3.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 openPdfPicker();  
  
 }  
 });  
  
 pickPdfButton4.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 openPdfPicker();  
  
 }  
 });  
  
 pickPdfButton5.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 openPdfPicker();  
  
 }  
 });  
  
// selectedPdfTextView = findViewById(R.id.selected\_pdf\_text\_view);  
  
 pickPdfButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 openPdfPicker();  
  
 }  
 });  
  
 mergepdf.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 generateAssignments();  
  
 }  
 });  
  
  
 back.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 *list\_path*.clear();  
 startActivity(new Intent(getApplicationContext(), Home.class));  
 overridePendingTransition(R.anim.*slide\_in\_right*, R.anim.*slide\_out\_left*);  
 finish();  
  
 }  
 });  
  
  
 pdfPickerLauncher = registerForActivityResult(new ActivityResultContracts.StartActivityForResult(),  
 result -> {  
 if (result.getResultCode() == Activity.*RESULT\_OK*) {  
 Intent data = result.getData();  
 if (data != null) {  
 pdfUri = data.getData();  
 *list\_path*.add(String.*valueOf*(pdfUri));  
  
  
// Intent intent = new Intent(Intent.ACTION\_VIEW);  
// intent.setDataAndType(pdfUri, "application/pdf");  
// intent.addFlags(Intent.FLAG\_GRANT\_READ\_URI\_PERMISSION);  
//  
// if (intent.resolveActivity(getPackageManager()) != null) {  
// startActivity(intent);  
// } else {  
// Toast.makeText(this, "No app found to open PDF", Toast.LENGTH\_SHORT).show();  
// }  
// selectedPdfTextView.setText(Html.fromHtml(""+list\_path));  
 // Do something with the selected PDF file  
 }  
 } else {  
 Toast.*makeText*(this, "No PDF selected", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
  
 }  
  
  
  
 void generateAssignments() {  
 try {  
 List<String> allQuestions = new ArrayList<>();  
 int i = 1;  
 // Extract questions from each PDF  
 for (String uriString : *list\_path*) {  
 Uri fileUri = Uri.*parse*(uriString);  
 List<String> questions = extractQuestionsFromPdf(fileUri);  
 allQuestions.addAll(questions);  
 // Shuffle questions randomly  
 Collections.*shuffle*(allQuestions);  
  
  
 // Generate 5 assignments (each containing 20 random questions)  
// for (int i = 1; i <= 2; i++) {  
 createPdfAssignment(allQuestions, sub\_name.getText().toString()+" assignment\_" + i + ".pdf");  
 i++;  
// }  
 }  
  
 Toast.*makeText*(this, "Assignments generated successfully!", Toast.*LENGTH\_LONG*).show();  
 } catch (Exception e) {  
 e.printStackTrace();  
 Toast.*makeText*(this, "Error generating assignments: " + e.getMessage(), Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
  
 // Extract questions from PDF  
 public List<String> extractQuestionsFromPdf(Uri pdfUri) {  
 List<String> questions = new ArrayList<>();  
 try {  
 ContentResolver contentResolver = getContentResolver();  
 InputStream inputStream = contentResolver.openInputStream(pdfUri);  
 PdfReader reader = new PdfReader(inputStream);  
  
 // Extract text from PDF  
 StringBuilder pdfText = new StringBuilder();  
 for (int i = 1; i <= reader.getNumberOfPages(); i++) {  
  
 String pageText = PdfTextExtractor.*getTextFromPage*(reader, i);  
 // Normalize extracted text  
 pageText = pageText.replace("\n", " ").replace("\r", " ").trim();  
 pdfText.append(pageText);  
  
// pdfText.append(PdfTextExtractor.getTextFromPage(reader, i));  
 }  
 reader.close();  
  
 // Split text into questions (assuming each question ends with '?')  
 String[] extractedQuestions = pdfText.toString().split("\\?");  
 for (String question : extractedQuestions) {  
 if (question.trim().length() > 10) { // Ignore short lines  
 questions.add(question.trim() + "?");  
 }  
 }  
 } catch (Exception e) {  
 e.printStackTrace();  
 }  
 return questions;  
 }  
  
  
 // Create PDF Assignment  
 public void createPdfAssignment(List<String> questions, String fileName) {  
 try {  
 File mergedFile = new File(Environment.*getExternalStoragePublicDirectory*(Environment.*DIRECTORY\_DOCUMENTS*), fileName);  
 Document document = new Document();  
 PdfWriter.*getInstance*(document, new FileOutputStream(mergedFile));  
 document.open();  
  
 // Load Poppins Font from assets  
 String fontPath = "assets/Poppins-Regular.ttf";  
 BaseFont poppinsBaseFont = BaseFont.*createFont*(fontPath, BaseFont.*IDENTITY\_H*, BaseFont.*EMBEDDED*);  
 Font poppinsFont\_head = new Font(poppinsBaseFont, 18, Font.*BOLD*);  
 Font poppinsFont\_desc = new Font(poppinsBaseFont, 14, Font.*NORMAL*);  
  
 // Add title  
 Paragraph paragraph\_heading = new Paragraph(sub\_name.getText().toString()+" Assignment " + fileName.replace(".pdf", "").split("\_")[1] + "\n\n",poppinsFont\_head);  
 paragraph\_heading.setAlignment(Element.*ALIGN\_CENTER*);  
// paragraph\_heading.setFont(poppinsFont);  
 document.add(paragraph\_heading);  
  
 // Add 20 random questions  
 int count = Math.*min*(20, questions.size());  
 for (int i = 0; i < count; i++) {  
  
 String cleanedQuestion = questions.get(i).replace("\n", " ").trim();  
  
 Paragraph paragraph = new Paragraph((i + 1) + ". " + cleanedQuestion,poppinsFont\_desc);  
  
// Paragraph paragraph = new Paragraph((i + 1) + ". " + questions.get(i),poppinsFont\_desc);  
 paragraph.setAlignment(Element.*ALIGN\_LEFT*);  
 document.add(paragraph);  
 document.add(new Paragraph("\n"));  
 }  
  
 document.close();  
 } catch (Exception e) {  
 e.printStackTrace();  
 }  
 }  
 private void openPdfPicker() {  
 Intent intent = new Intent(Intent.*ACTION\_OPEN\_DOCUMENT*);  
 intent.setType("application/pdf");  
 pdfPickerLauncher.launch(intent);  
 }  
 private void selectPDF()  
 {  
 // Initialize intent  
 Intent intent  
 = new Intent(Intent.*ACTION\_GET\_CONTENT*);  
 // set type  
 intent.setType("application/pdf");  
 // Launch intent  
 resultLauncher.launch(intent);  
 }  
}

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:paddingTop="30dp"  
 android:background="@color/white"  
 tools:context=".questions\_input">  
  
 <Button  
 android:id="@+id/pick\_pdf\_button1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerInParent="true"  
 android:text="Chapter 1"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.469" />  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Name of Faculty: "  
 android:textColor="@color/black"  
 android:textSize="19sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.06"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.099" />  
  
 <TextView  
 android:id="@+id/textView4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Subject: "  
 android:textColor="@color/black"  
 android:textSize="19sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.056"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.276" />  
  
 <TextView  
 android:id="@+id/textView5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="No. of Chapters: "  
 android:textColor="@color/black"  
 android:textSize="19sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.059"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.367" />  
  
 <TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Department: "  
 android:textColor="@color/black"  
 android:textSize="19sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.059"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.185" />  
  
 <EditText  
 android:id="@+id/editTextText"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="45dp"  
 android:paddingLeft="10dp"  
 android:background="@drawable/custom\_edittext"  
 android:ems="10"  
 android:hint="Name"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.92"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.09" />  
  
 <EditText  
 android:id="@+id/editTextText3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="45dp"  
 android:background="@drawable/custom\_edittext"  
 android:ems="10"  
 android:hint="Subject Name"  
 android:paddingLeft="10dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.93"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.271" />  
  
 <EditText  
 android:id="@+id/editTextText2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="45dp"  
 android:background="@drawable/custom\_edittext"  
 android:ems="10"  
 android:hint="Department"  
 android:paddingLeft="10dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.925"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.175" />  
  
 <EditText  
 android:id="@+id/editTextText4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="45dp"  
 android:background="@drawable/custom\_edittext"  
 android:ems="10"  
 android:hint="Chapters"  
 android:inputType="number"  
 android:paddingLeft="10dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.935"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.362" />  
  
 <Button  
 android:id="@+id/pick\_pdf\_button3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Chapter 3"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.673" />  
  
 <Button  
 android:id="@+id/pick\_pdf\_button4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Chapter 4"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.768" />  
  
 <Button  
 android:id="@+id/merge\_pdf"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:onClick="merge"  
 android:text="Generate Assignment"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.806"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.976" />  
  
 <Button  
 android:id="@+id/pick\_pdf\_button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Chapter 2"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.572" />  
  
 <Button  
 android:id="@+id/pick\_pdf\_button5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Chapter 5"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.868" />  
  
<!-- <TextView-->  
<!-- android:id="@+id/selected\_pdf\_text\_view"-->  
<!-- android:layout\_width="wrap\_content"-->  
<!-- android:layout\_height="wrap\_content"-->  
<!-- android:layout\_below="@id/pick\_pdf\_button1"-->  
<!-- android:layout\_centerHorizontal="true"-->  
<!-- android:layout\_marginTop="16dp"-->  
<!-- android:textSize="16sp" />-->  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Generate"  
 android:textColor="@color/black"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.03" />  
  
 <Button  
 android:id="@+id/BackButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Back"  
 android:textSize="16sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.143"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.976" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>