

A
MINI PROJECT REPORT
ON
“SMART RESULT ANALYSIS”
FOR PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE
EMPLOYABILITY SKILLS AND MINI PROJECT SUBJECT
OF T.E. E&TC – 2015 COURSE, SPPU, PUNE

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PUNE – 43

ACADEMIC YEAR: 2020 - 2021

**Department of Electronics and Telecommunication
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Pune Institute of Computer Technology, Pune – 43**

CERTIFICATE

This is to certify that the Mini Project Report entitled
Smart Result Analysis has been successfully completed by

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Is a bona fide work carried out by them under the supervision of [Name of the Project Guide]
and it is approved for the partial fulfillment of the requirements for the Employability skills
and Mini Project and Seminar Subject of T.E. E&TC – 2015 Course of the Savitribai Phule
Pune University, Pune.

Prof.
Project Guide
Prof. Sandeep Dhende

Prof.
HOD, E&TC Dept. of E&TC

Place: Pune
Date :

ACKNOWLEDGEMENT

Please acknowledge everybody who were involved and helped you in completing this report/theses/project work. But keep this brief and resist the temptation of writing flowery prose. Do include all those who helped you, e.g. other faculty / staff you consulted, colleagues who assisted etc. Acknowledge the source of any work that is not your own.

Roshan Bhattad
Saharsh burse

ABSTRACT

The main focus of problem was that previously the college faculty had to create the excel sheet manually from the pdf data.

It was time consuming and often prone to human typing error such error could lead to wrong analysis of student performance data.

The main Objective of this project is efficiently converting pdf data to excel file automatically and with error free data.

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Introduction

1.1 Background

As SPPU sends a pdf file where all students data is in page format where it is not possible to analyze data manually. As you will have to enter data manually in excel sheet and then based on that you will get to know how many students have passed. Who are the toppers etc. but will it be accurate?

1.2 Relevance

As per the E&TC branch is concerned we all know that this branch also comes under the umbrella of software field. The related subjects are java, data structures, OOP.

1.3 Literature Survey

We have read lots of lots of documentation while building up the project many errors came each time we had to open up stack overflow to solve errors so there was lot of literature survey as it was all about reading we read about pdfbox which is a pdf extraction tool we learned how to use it we also read about apache poi which is used to read and write any Microsoft office tools like MS excel which we are using we also gone through javafx which is latest feature in java for GUI (open source now)

1.4 Motivation

As our project is focusing on only E&TC branch result it can be used for any engineering result to be analyzed but we need to test it first many updates yet to come this analyzer can also be used to analyze only 1st semester results.

1.5 Aim of the Project

- To extract data from pdf file
- Display that data in excel sheet student wise in a row
- Find toppers for each subject
- Find subject result

1.6 Scope and Objectives

At the end we should be able to see the extracted data in excel sheet but we will also try to find toppers list in the time allotted

DESIGN AND IMPLEMENTATION

2.1 Introduction

Smart result analyzer software converts pdf formatted pdf to smartly organized Excel sheet so that the college department can easily analyze the data according to their need. it is specially designed for SPPU Engineering results provided by the university.

2.2 SYSTEM REQUIREMENTS

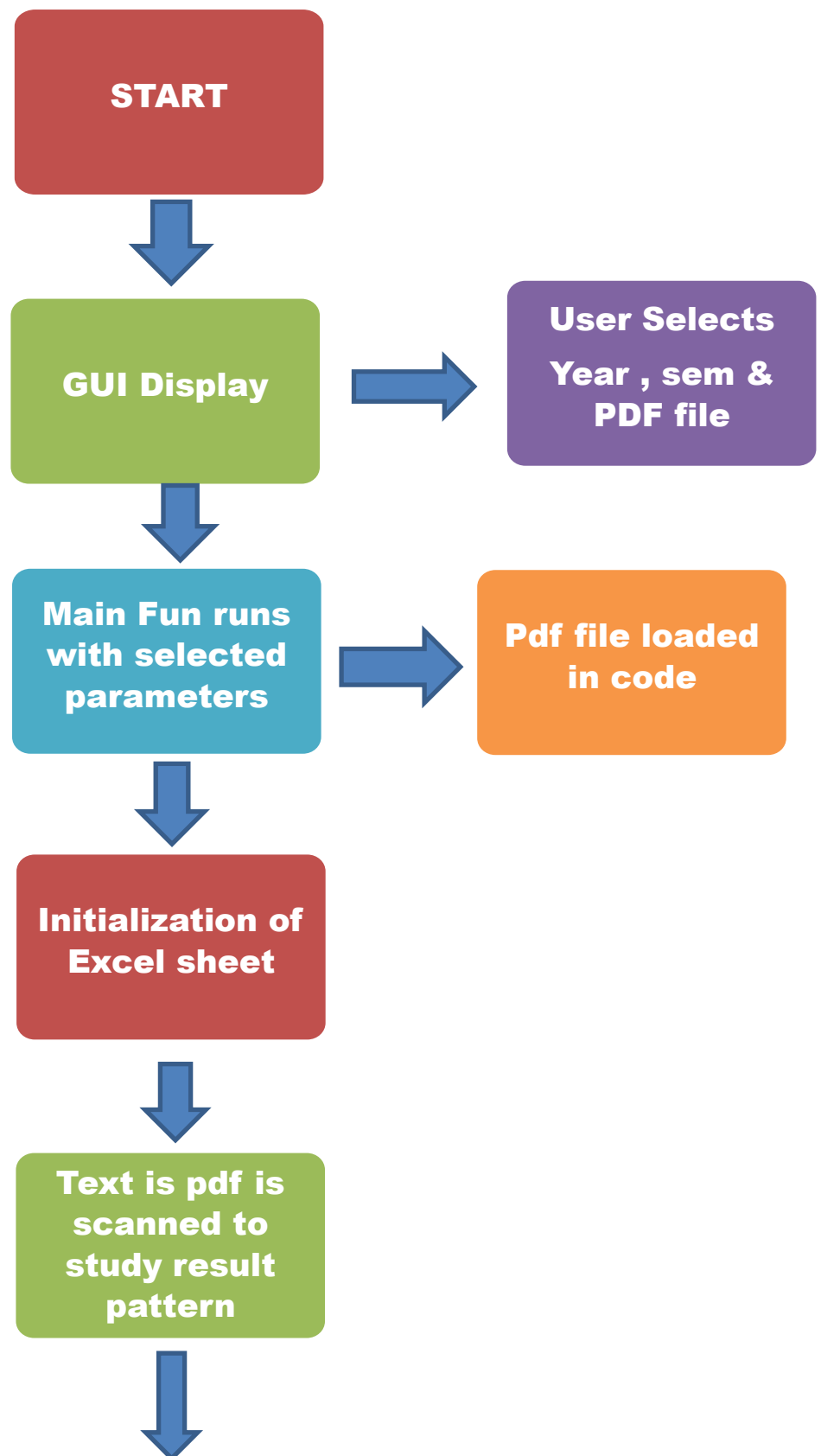
Windows OS

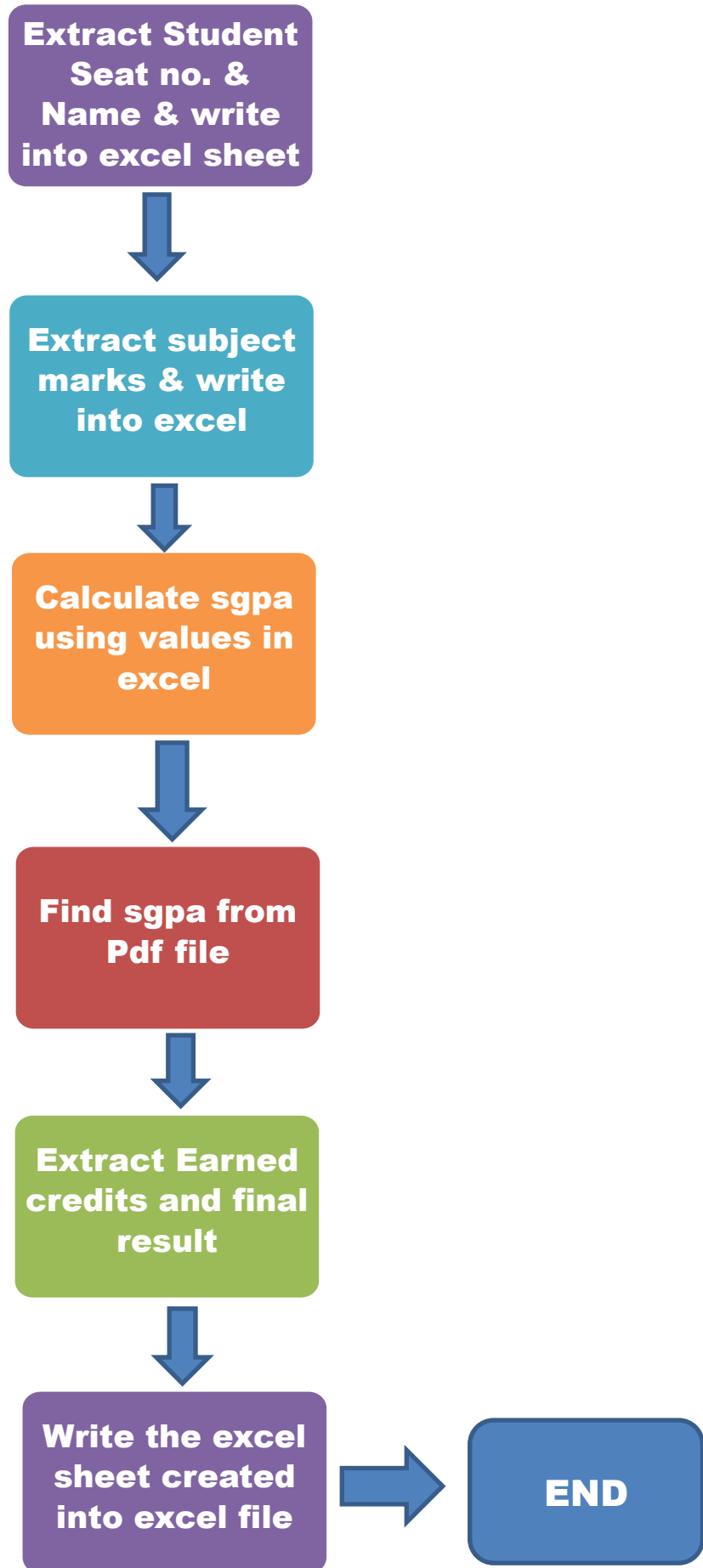
- Java JDK 1.8 Or Higher
- JAVA library
 - Pdfbox
 - Apache Poi
- Java Regex
- Java FX

2.3 The principle of software design mainly includes the following points:

- 1 Reliability** The reliability of the software design must be determined. The reliability of the software system refers to the ability to avoid fault occurred in the process of system running, as well as the ability to remedy troubles once the fault occurs.
- 2 Reusability** Look for commonness of similar codes and come out new method abstractly and reasonably. Pay attention to the generic design.
- 3 Understandability** The understandability of software not only require clear and readable document, but the simplified structure of software itself, which requires the designer possess keen insight and creativity, and know well about the design objects.
- 4 Simple program** to keep the program simple and clear, good programmers can use simple program to solve complex problems.
- 5 Testability** means that the created system has a proper data collection to conduct a comprehensive test of the entire system.
- 6 The Open-Closed Principal Module** is extensible but cannot be modified. Extension is open to the existing code in order to adapt to the new requirements. While modify is closed to the categories. Once the design is completed, the categories cannot be modified.

2.4 FLOW CHART





2.5 Sppu Result Pdf Format

PAGE :- 1

SAVITRIBAI PHULE PUNE UNIVERSITY, S.E.(2015 COURSE) EXAMINATION,MAY 2020

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SECOND YEAR SGPA : --, TOTAL CREDITS EARNED : 45[RRB]

2.6 Required Output

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
SR.NO	SEAT NO	SUBJECT CODE	204181										204182										TOT	Crds	Grd
		NAME	TOT	Crds	Grd	Grd Pts	Crd Pts	SS-TW	Crds	Grd	Grd Pts	Crd Pts	TOT	Crds	Grd	Grd Pts	Crd Pts	EDC-PH	Crds	Grd	Grd Pts	Crd Pts	TOT	Crds	Grd
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2	5150003002	DHANASHREE KISHOR BURHADE	76	3	A+	8	27	88	1	O	18	18	74	4	A+	8	30	88	1	A	8	8	96	3	A
3	5150003003	POTDAR PARITOSH DINESH	54	3	B	6	18	88	1	A	8	8	72	4	A+	8	36	88	1	A	8	8	93	3	B
4	5150003004	RAJANE SHARVARE RAJESH	47	3	C	5	15	84	1	O	18	18	68	4	A	8	32	48	1	P	4	4	54	3	B
5	5150003005	AARUSH PANT	FF	3	F	0	0	40	1	C	5	5	FF	4	F	8	0	FF	1	F	0	0	FF	3	F
6	5150003006	ADHIKARI SANAM VIVEK	71	3	A+	8	27	76	1	A+	8	8	70	4	A+	8	36	72	1	A+	8	8	83	3	A
7	5150003007	AGRAWAL DEEPAK NARENDRA	58	3	B+	7	21	76	1	A+	8	8	64	4	A	8	32	84	1	A	8	8	83	3	A
8	5150003008	ANDOLI ADITI	72	3	A+	8	27	76	1	A+	8	8	67	4	A	8	32	48	1	P	4	4	81	3	A
9	5150003009	AKSHAY BABURANG SATPUTE	78	3	A+	8	27	84	1	O	18	18	87	4	O	10	40	78	1	A+	8	8	71	3	A+
10	5150003010	AKSHAY SOLUNKAR	FF	3	F	0	0	88	1	A	8	8	53	4	B	8	24	FF	1	F	0	0	44	3	P
11	5150003011	ALPE CHINMAY CHANDRASHREEHAR	75	3	A+	8	27	48	1	C	5	5	79	4	A+	8	36	88	1	O	10	10	64	3	A
12	5150003012	ANBIRE SIDDHESH SURESH	55	3	B+	7	21	72	1	A+	8	8	67	4	A	8	32	FF	1	F	0	0	56	3	B+
13	5150003013	ANANDRAJ SHREKHAR ASANE	77	3	A+	8	27	76	1	A+	8	8	74	4	A+	8	36	80	1	O	10	10	86	3	A
14	5150003014	ANIKETH J JOSHI	46	3	C	5	15	72	1	A+	8	8	58	4	B+	7	28	88	1	A	8	8	52	3	B
15	5150003015	ANKIT	81	3	A	8	24	72	1	A+	8	8	FF	4	F	8	0	FF	1	F	0	0	47	3	C
16	5150003016	ANKUSH MANCHANDANI	56	3	B+	7	21	76	1	A+	8	8	70	4	A+	8	36	FF	1	F	0	0	87	3	A
17	5150003017	ANSHIKA SHUKLA	55	3	B+	7	21	76	1	A+	8	8	63	4	A	8	32	FF	1	F	0	0	81	3	A
18	5150003018	ANUPAM TYAGI	85	3	A	8	24	48	1	C	5	5	72	4	A+	8	30	FF	1	F	0	0	94	3	A
19	5150003019	ANUSHKA KEDAR MALI	70	3	A+	8	27	76	1	A+	8	8	69	4	A	8	32	74	1	A+	8	8	80	3	B+
20	5150003020	ARUN VIKRAM KALJINDER	56	3	B+	7	21	76	1	A+	8	8	62	4	A	8	32	44	1	P	4	4	83	3	A
21	5150003021	ASAWARI WAJSADE	58	3	B+	7	21	76	1	A+	8	8	68	4	A	8	32	88	1	A	8	8	55	3	B+
22	5150003022	ASHISH SHARMA	55	3	B+	7	21	80	1	O	18	18	67	4	X	8	32	FF	1	F	0	0	82	3	A
23	5150003023	ATEY ANKIT ASHOK	58	3	B+	7	21	84	1	O	18	18	74	4	A+	8	36	88	1	O	10	10	80	3	B+
24	5150003024	ATHAWALE SAURABH SHYAM	FF	3	F	0	0	72	1	A+	8	8	52	4	B	8	24	80	1	A	8	8	52	3	B
25	5150003025	AYUSH RAJESH SHARMA	83	3	O	18	36	80	1	O	18	18	88	4	A	8	32	88	1	A	8	8	96	3	B+
26	5150003026	AYUSHANAN KANAGURU	88	3	A	8	24	80	1	O	18	18	75	4	A+	8	36	72	1	A+	8	8	83	3	A
27	5150003027	BADALE HRISHKESH BAIKUNTHAN	54	3	B	6	18	72	1	A+	8	8	FF	4	F	8	0	FF	1	F	0	0	FF	3	F
28	5150003028	BARNA PRANAV PRAFUL	80	3	O	18	36	80	1	O	18	18	73	4	A+	8	36	88	1	O	10	10	83	3	A
29	5150003029	BAHETI ARCH RAJESH	87	3	A	8	24	72	1	A+	8	8	83	4	A	8	32	84	1	A	8	8	95	3	B+

SE MAY 2020 SE MAY 2020 BACKLOG SUMMARY List of failed student

3. LIBRARY, CLASS & FUNCTIONS USED

3.1 JAVA FX GUI (Graphical User Interface)

- **JavaFX** is an open source, next generation client application platform for desktop, mobile and embedded systems built on Java.
- JavaFX is intended to replace swing in Java applications as a GUI framework.
- FXML is the XML based Declarative mark up language. The coding can be done in FXML to provide the more enhanced GUI to the user.
- In this project we will use frame(scene),radio buttons, Labels(text),and buttons.

3.2 JAVA APACHE PDFBOX

- Apache PDFBox is an open-source Java library that supports the development and conversion of PDF documents.
- PDFBox is used to develop Java programs that can create, convert, and manipulate PDF documents.
- Properties used in this project:-
 - **Extract Text** – Using PDFBox, you can extract Unicode text from PDF files.
 - **Split & Merge** – Using PDFBox, you can divide a single PDF file into multiple files.
 - **Pattern & Matcher**-Using PDFBox, you can search a particular text or pattern through text.

3.3 JAVA APACHE POI

- Apache POI is a popular API that allows programmers to create, modify, and display MS Office files using Java programs. It is an open source library developed and distributed by Apache Software Foundation to design or modify Microsoft Office files using Java program.
- **XSSFWorkbook** – This class has methods to read and write Microsoft Excel and OpenOffice xml files in .xls or .xlsx format.
- **createSheet():**-Creates an XSSFSheet for this workbook, adds it to the sheets, and returns the high level representation.
- **createCellStyle():**-Creates a new XSSFCellStyle and adds it to the workbook's style table.
- **createCell(int columnIndex):**- Creates new cells within the row and returns it.
- **AutoSizeColumn(int column):**-Adjusts the column width to fit the contents.
- **AddMergedRegion(CellRangeAddress region):**-Adds a merged region of cells (hence those cells form one).

Results and Discussion

Conclusions

- We have converted pdf Result file to excel sheet
- We have created Congratulation Sheet

Future Scope

We can improve GUI and Automate the year selection
And add more details in congratulation sheet and add more separate sheets for backlog, fail students.

References

<https://docs.oracle.com/javase/7/docs/api/java/util/regex/Pattern.html>
<https://pdfbox.apache.org/>
<https://poi.apache.org/>