1.INTRODUCTION

1.1 Overview

In this project, we will build a process to Grade Calculation Excel Automation that works over Microsoft Excel 2013 using Blue prism.

1.2 Purpose

Generally,in order to calculate grades we use manual formulas in Excel.We also need to enter the marks manually each time.
Our goal through this project is to automate this whole process with the help of RPA technology and Blueprism.
We can avoid doing the rote and recurring task of calculating grade for each student based on their marks repeatedly and save time with the help of this project.

2.LITERATURE SURVEY

2.1 Existing Problem

At present,in order to calculate grades we have to use Excel Formulas.This makes the task repetetive and rote.We need to manually type the formulas for each student while calculating their grade.

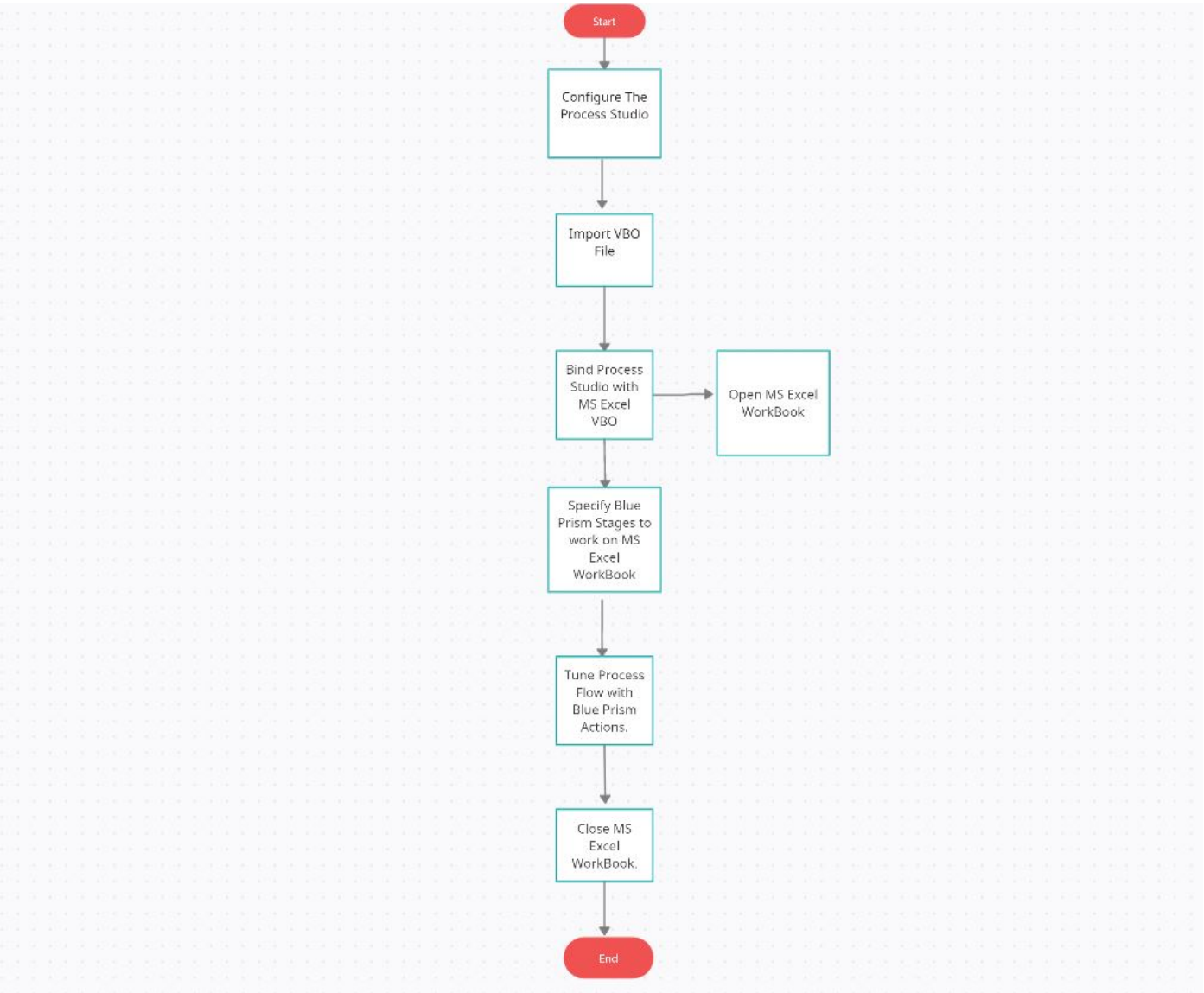
2.2 Proposed Solution

In order to overcome the problem mentioned above,we will use RPA technology to automate the process of grade calculation.With the help of Digital Workers in Blueprism software our whole process of calculating

the grades will be automated.It will save us a lot of time and make this task very efficient.

3.THEORITICAL ANALYSIS

3.1 Block Diagram



3.2 Hardware / Software Designing

i.Windows 10 OS
ii.Blueprism Software
iii.Microsoft Excel
iv.250 GB hard drive
v.Ram 8 GB

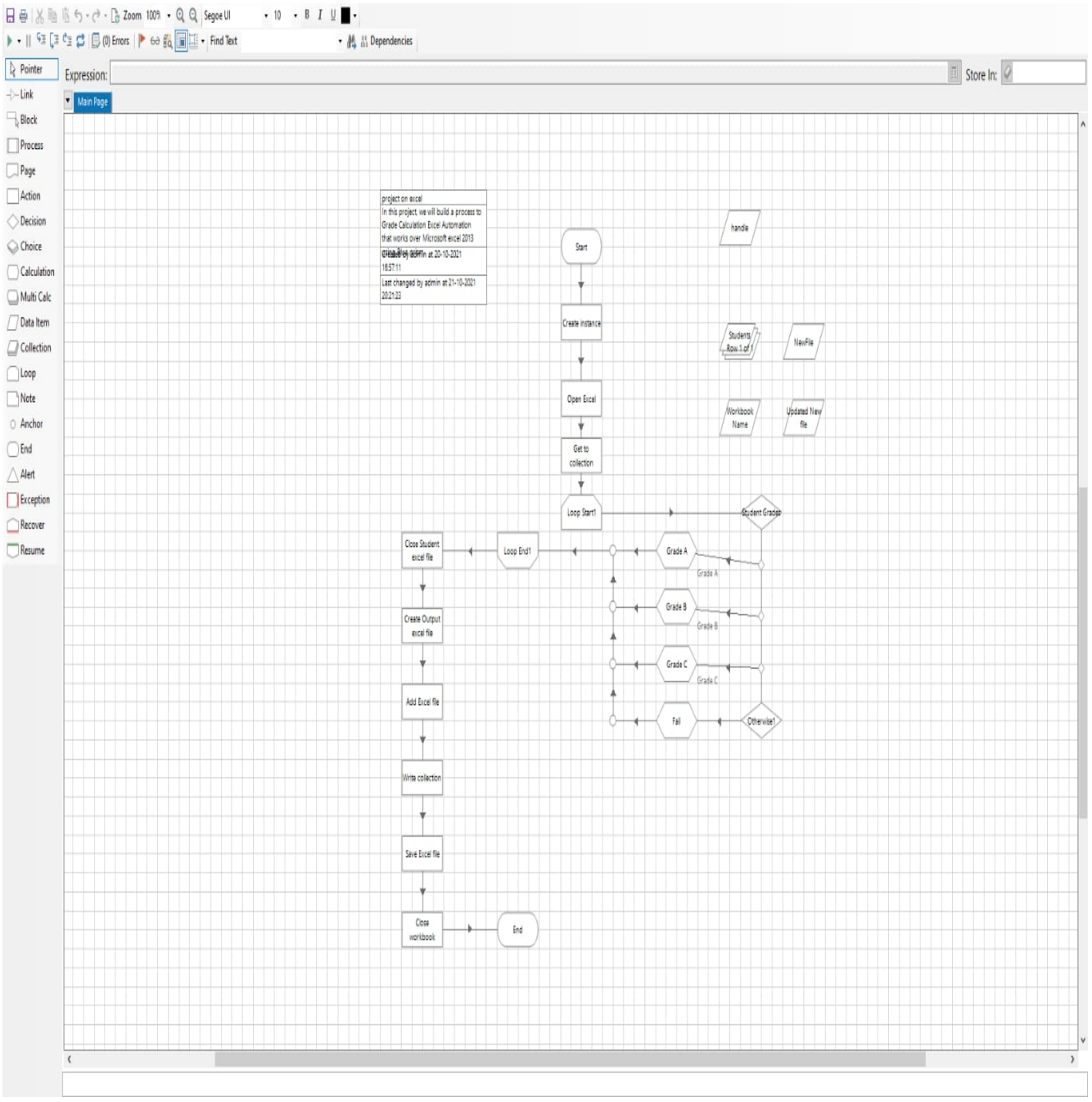
4.EXPERIMENTAL INVESTIGATIONS

Object-based approach

Object-based is the standard approach to automating all desktop applications. In this case, the bot emulates the actions of a real person, typing and clicking on buttons and other elements on the UI. It allows you to automate all actions in Excel that a real person can do, if they are routine and rule-based. However, when the bot interacts with the application UI rather than with the file directly, as when API is used the speed of execution is slower than with the two approaches above, and the application needs to be opened on the screen.

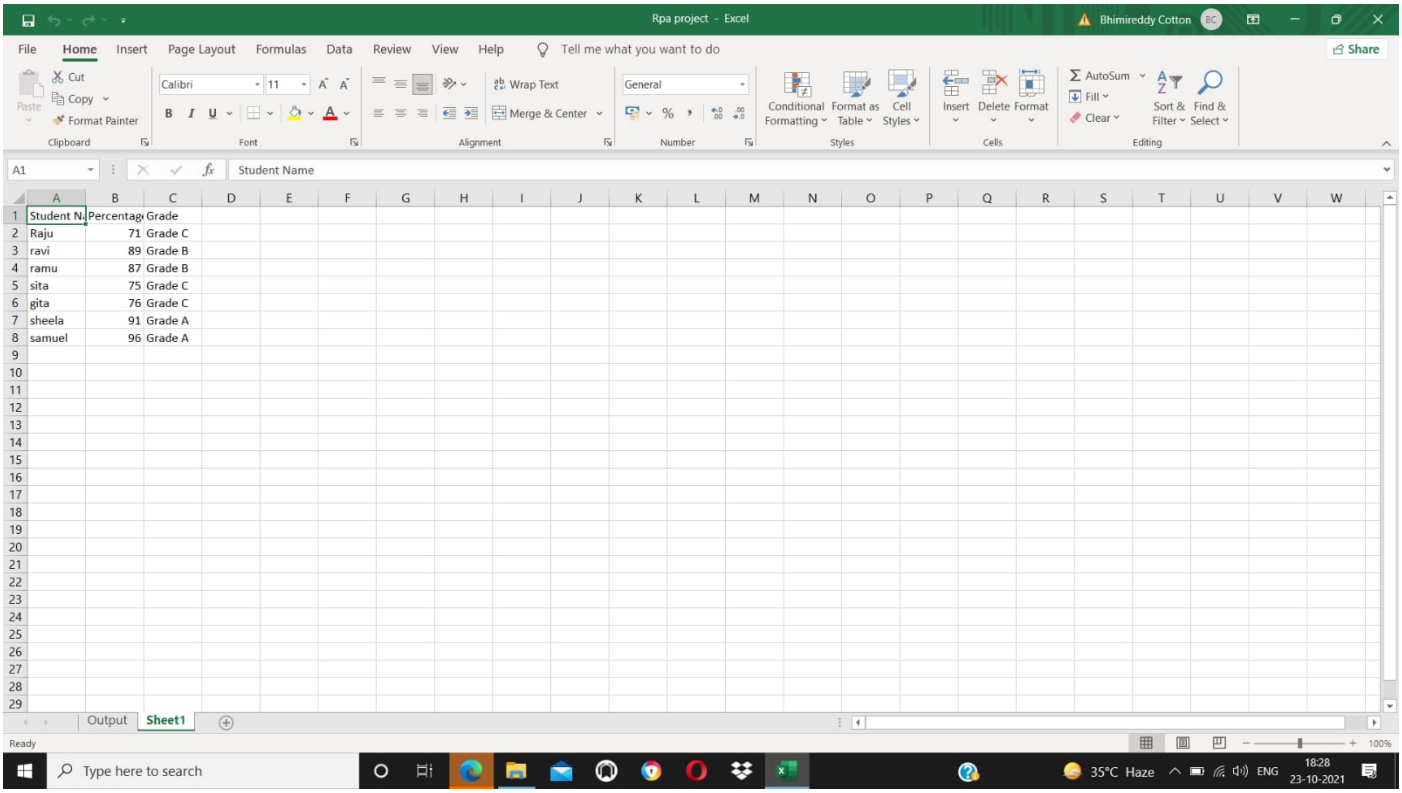
There are several approaches to automating Excel with RPA: • Coding using RPA API and other API tools • Native actions for Excel automation • Object-based automation

5.FLOWCHART


Zoom 100%
Segoe UI
10
Find Text
Dependencies
(0) Errors
Pointer
Link
Block
Process
Page
Action
Decision
Choice
Calculation
Multi Calc
Data Item
Collection
Loop
Note
Anchor
End
Alert
Exception
Recover
Resume
Expression:
Store In:
Main Page
project on excel
In this project we will build a process to Grade Calculation Excel Automation that works over Microsoft excel 2013
Created by admin at 20-10-2021 16:57:11
Last changed by admin at 21-10-2021 20:21:33
handle
Start
Create instance
Students Row 1 of 1
NewFile
Open Excel
Workbook Name
Updated New file
Get to colection
Loop Start1
Student Grade
Close Student excel file
Loop End1
Grade A
Grade A
Grade B
Grade B
Grade C
Grade C
Create Output excel file
Fail
Otherwise1
Add Excel file
Write collection
Save Excel file
Close workbook
End

6.RESULT

All the flows was executed successfully by reading the given excel sheet and the output was stored new excel document as output.



7.ADVANTAGES AND DISADVANTAGES

Advantages:

i.More efficient.
ii.Improved accuracy by eliminating human error.
iii.Increased agility as it makes easier for us to adapt if any changes are to be made.

Disadvantages:

i.Added complexity as when RPA is not managed and documented properly,it can make the task in hand more complex.
ii.Managing and maintaining of bots can be a tough job if not done with expertise.

8.APPLICATIONS

This solution can be applied in schools or colleges which have a rich IT infrastructure so that people can be more efficient and use their saved time in other areas of work.
It can also be applied by private tutors so that the menial job of repetitive calculation of grades for each student can be avoided as the whole process gets automated.

9.CONCLUSION

Thus, due to the various benefits of RPA, its utilization is gradually increasing in the market worldwide. Most of the organization are already implementing the RPA technology, as it optimizes the cost and fress the others resources. It is a cost-effective technique and also has non-financial benefits such as it consists of more accurate and consistent processes, which are less prone to errors. Nowadays, most of the organizations are using RPA for testing the particular application and eliminating the old testing tools due to its limitations.

10.FUTURE SCOPE

The technology is advancing rapidly in almost all the fields, not in a minute but in every second. With this quick development in technology, tremendous growth has been observed in the global automation industry. The usage of automation techniques is in continuous growth and it is anticipated for the predictable future. The robotic process automation is one of the revolutions in the automation industry, and its expected to increase higher potential terms of utilization and staff implementation in the upcoming year.

11.BIBLIOGRAPHY

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Robotic Process Automation: A Scientific and Industrial Systematic Mapping Study

By J. G. Enríquez;A. Jiménez-Ramírez;F. J. Domínguez-Mayo;J. A. García-García