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We will be failing in duty if we do not acknowledge with grateful thanks to the authors of the references and other literatures referred in this Project.

We express my thanks to all staff members and friends for all the help and co-ordination extended in bringing out this Project successfully in time.

Finally, we are very much thankful to my parents who guided me for every step.

This project is submitted by: Kauveri Kavyashree Gobi - 38110246

ABSTRACT

Payroll and salary administrafion are necessary tasks within every HR department, even if there is a separate payroll team. In recent years, both have been made significantly easier with new technology, but there is sfill the risk of human error, and it can take hours of work to complete payday obligafions. And, as everyone in HR has experienced at one point in their careers, a simple error in payroll can easily lead to disgruntled Employees. By using Digital Workers, the payroll process can be virtually pain-free. With their ability to work easily across mulfiple systems and in tandem with your team, Digital Workers can complete the tradifionally manual salary and payroll administrafion process effecfively and accurately, ensuring your people are paid the correct amount and speeding up the monthly process that many teams dread. With the increasing emphasis on evidence-based management, the human resources (HR) funcfion has enthusiasfically embraced technology with a view to provide more efficient and effecfive delivery of HR services. Supported by new technologies, such as cloud compufing and analyfics, the e-HRM applicafions are becoming ever more popular; however, the intangible nature of people management, social processes and actors and holisfic nature of technology project management highlight the limitafions of technology in HR services delivery. But implemenfing such automated tools for HR processes will create a fricfion between the current and newly formulated pracfices. Employees may perceive this impact in a different way than the organizafion would. This study examines the percepfion of Employees regarding HR process automafion in terms of both individual as well as organizafional level. Whether HR automafion can deliver the quality and safisfacfion that it promises? This remains a crifical quesfion to answer in today's fast moving technology dependent world.

1. INTRODUCTION

1.1 Introduction & Objectives

・Payroll is a list of Employees who get paid by the company. Payroll also refers to the total amount of money employer pays to the Employees.

・Robofic Process Automafion (RPA) is a type of automafion technology currently transforming the way businesses operate.

・Excel automafion streamlines your use of the applicafion by automafically performing tasks.

・Managers today must make beter and faster business decisions than ever. Investments which are focusing on informafion technology are ohen considered as a crifical method of speeding up and improving the management decision making. Yet it has proved distressingly difficult to understand the actual potenfial of investments in Informafion Technology. This is parficularly common in business areas focusing on Human Resources (HR).

In almost every organizafion, the responsibility of performing various strategic tasks such as management of the recruitment process, terminafion process, payroll management etc. lies within the Human resource department. Some of it may include Employee_ monitoring at different levels, payroll management, Employee_ benefits, training, and development, etc. In-order to make this work a lot easier, organizafions across the world are invesfing in HR automafion in-order to find out and perform the best human capital decision. However, every organizafion are now looking for more advanced methods of automafion, which may help them to manage various complex processes such as, Data storage, Data control and modificafions, Effecfive communicafion process enhancement, beter connecfivity with all departments easily and swihly which would also be useful for the long-term goals of the organizafion. Informafion Technology has now considered as a potenfial tool that managers use, both generally, and in human resource funcfions, to increase the capabilifies of the organizafion.

1·2 Purpose of the Project

Payroll systems manage everything having to do with the process of paying Employees and filing employment taxes. They are put in place to keep track of worked hours, calculafing wages, withholding taxes and other deducfions, prinfing and delivering checks and paying government employment taxes.

The automated system performs all types of payments: hourly, overfime, double-fime, salaries, commissions, bonuses, pay raises, retroacfive pay, wage deducfions, auto payments and tuifion reimbursements. Notably, the automated system eliminates manual paycheck wrifing. The system automafically generates paychecks and stubs and enables direct deposit.

The automated fime-keeping system allows the employer to import fime clock data into payroll sohware. Specifically, the Employee_ uses a swipe card or badge, or the handprint or fingerprint method, to clock in and out. Once the entries are transported into the payroll sohware, the sohware computes the fime worked. All the payroll staff member must do is ensure the fime is transported appropriately and make the necessary edits. Payroll Management System gives you the power to:

Manage Employee Informafion Efficiently.
Define the emoluments, deducfions, leave etc.
Generate and Manage the Payroll Processes according to the Salary structure assigned to the Employee.
Generate all the Reports related to Employee, atendance/leave, payroll etc.
Manage your own Security.

It may be difficult to decide which system to choose, but there are some factors to keep in mind when deciding. First, analyze the size of your business and decide how much you are willing to spend on payroll processing. Payroll Management System. While it is possible for smaller businesses to handle payroll dufies in-house through a manual process, much fime can be wasted while atempfing to calculate everything correctly.

2. REQUIREMENTS

Blue prism is a UK-Based Sohware Company and is one of the leading robofic process automafion tools. It is used to automate mundane tasks such that they could operate without any manual intervenfion. Blue prism has gained edge over its compefitors as it has beter security, flexibility, scalability, compliance, and resilience.

Pre-requirements for Blue Prism

The following are the pre-requisites for the Blue Prism. It is the only sohware which

- Creates and supports a digital workforce of industrial strength and enterprise scale.
- Does not require IT skills to implement
- Can be implemented in sprints of 4 to 8 weeks (Start to finish)
- Is very low cost compared to the TCO of alternafive solufions
- Provides tremendous payback with self-funding returns and an ROI that has been as high as 80%
- Can be managed within IT infrastructure and processes

Installafion of Blue Prism

- The following are the installafion requirements for Blue Prism –
- Windows 10 (Preferred) OS, 64 bit
- Blue prism installafion Sohware, 64 bit
- Blue Prism License File
- SQL Server Express Edifion, 64

2. 1 Software Requirements

Requirement is a condifion or capability possessed by the sohware or system component in order to solve a real-world problem. The problems can be to automate a part of a system, to correct shortcomings of an exisfing system, to control a device, and so on. IEEE defines requirement as A condifion or capability

that must be met or possessed by a system or system component to safisfy a contract, standard, specificafion, or other formally imposed documents. Requirements describe how a system should act, appear or perform. For this, when users request for sohware, they provide an approximafion of what the new system should be capable of doing. Requirements differ from one user to another and from one business process to another.

- Operafing system: Windows XP/Vista or any main stream OS
- Installafion and Setup Guide for Blue Prism
- Installafion and Setup Guide for MS Excel
- Blue prism Version: 6.10.1
- Blue prism License File
- Blue prism installafion Sohware 64 bit
- MS Excel
- Windows 7/8/10

2. 2Hardware Requirements

The hardware requirements are the requirements of a hardware device. Most hardware only has operafing system requirements or compafibility. For example, a printer may be compafible with Windows XP but not compafible with newer versions of Windows like Windows 10, Linux, or the Apple macOS. If a hardware device is not compafible with your computer, it is up to the manufacturer to release drivers. Unfortunately, many manufacturers only release updated drivers to fix problems with older drivers and ohen do not release drivers for newer operafing systems or alternafive operafing systems. If a hardware device doesn't have drivers for your operafing system, the only solufion may be to get a more up-to-date replacement device.

The following is the Hardware required to complete this project:

- Internet connecfion to download and acfivate
- Administrafion access to install and run Blue Prism
- Minimum 10GB free disk space

・Windows 8.1 or 10.

・Minimum System Requirements to run Office Excel 2013, your computer needs to meet the following minimum hardware requirements

- 500 megahertz (MHz)
- 256 megabytes (MB) RAM
- 1.5 gigabytes (GB) available space
- 1024x768 or higher resolution monitor

3. FLOW AND IMPLEMENTATION

3. 1Creation

3. 1. 1 Idea:

Need to find a new one --“Generally, in the industries monitoring the machine status confinuously and maintaining the records of the enfire data plays a very important role as that helps the officials to analyze the producfion factors. This also helps in resolving some of the problems like machine failures, producfion delays, etc. Through this project, we can create a system that will capture some important parameters of the Employee_s like their Employee_ id, Name, salary and etc., All the parameters along with the salary are stored in excel sheet. Admin can monitor the enfire device parameters and the previous records of data through the excel sheet.”

3.1.2 Objectives:

By the end of this project, you will:
Gain insights into building blocks of Blue Prism automafion.

- Imporfing MS Excel VBO (Visual Basic for Applicafions) in Blue Prism.
- Tuning Process Studio with specific needs.
- Working with different stages in the Process studio.
- Build a HR Payroll Excel Automafion that works over Microsoh excel 2013.

3.1.3 Project Flow:

- Imporfing Blue Prism MS Excel VBO (Visual Basic for Applicafions)
- Binding Process Studio with MS Excel VBO.
- Opening MS Excel Workbook.
- Specifying Blue Prism Stages to work on MS Excel Workbook in Blue Prism.
- Tuning Process Flow with Blue Prism Acfions.
- Closing MS Excel Workbook.

To accomplish this, we must complete all the acfivifies and tasks listed below:

1. **Configure the Process Model**
    - Import MS Excel VBO
    - Process Model binding with MS Excel VBO
2. **Adding Process Files**
    - Create Instance
    - Open Excel file
    - Get to collecfion
    - Loop module
    - Mulfi Calculafion module
    - Write collecfion
    - Save Excel file
    - Close workbook

3.1.4 Prerequisites:

To complete this project, you must require the following concepts and sohware's:

- Knowledge of programming language, network structures, should know how to perform administrator acfivifies on windows server. Understanding of Installafion models and design of infrastructure. Able to detect repeafing tasks and automate them.
- MS Excel basic knowledge like Cell, Worksheet, Workbook, etc.

4. ACTIVITIES

Milestone 1: Configure the Process Studio

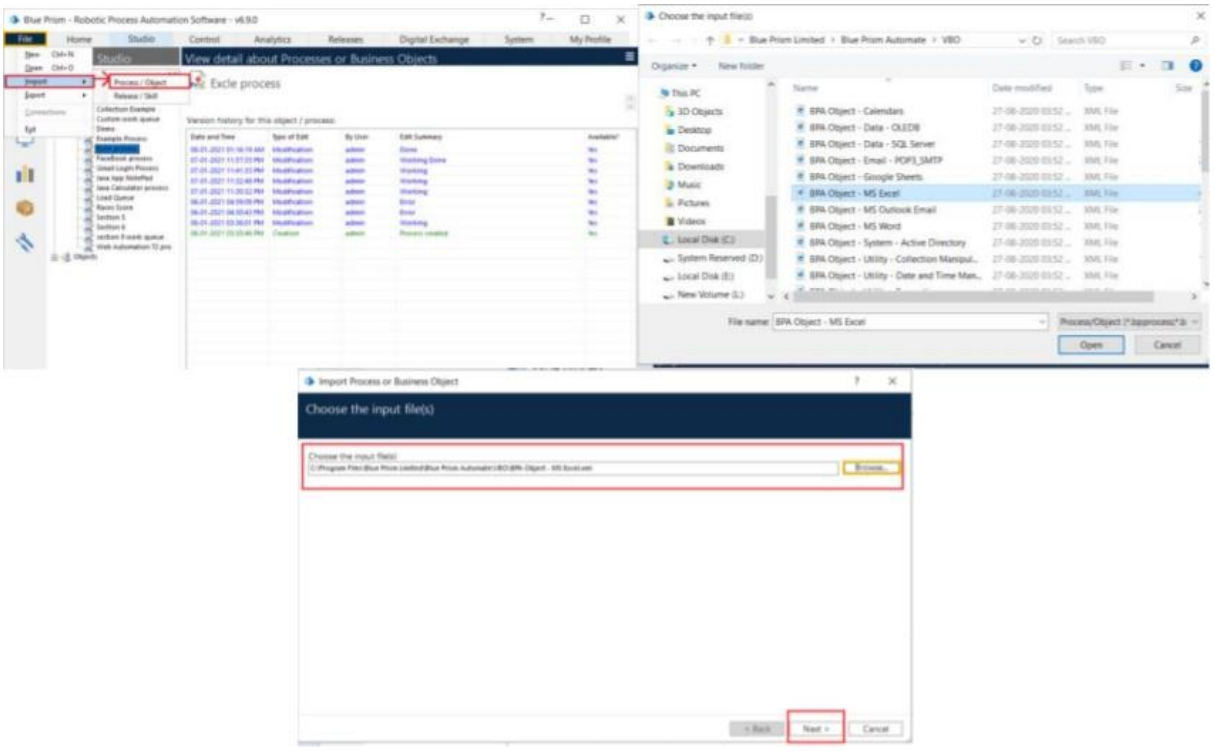
Let us create the Process Object bind with MS Excel VBO.

Object studio is mainly used to develop the objects. Inside the object, we have different types of acfions as follows:

1. Applicafion Modular to Spy the Elements
2. Inifialize page and clean up page.

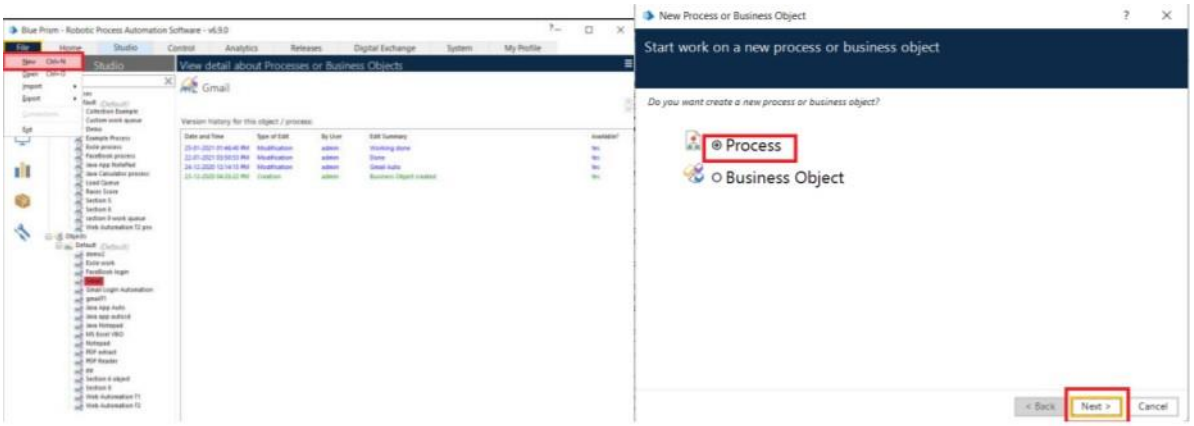
Acfivity 1: MS Excel VBO (Import VBO file)

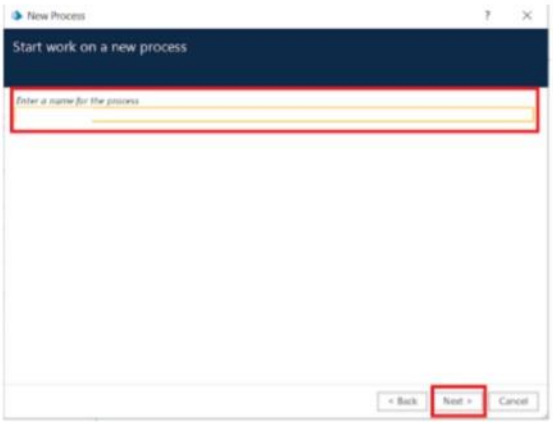
File -> Import -> Browse -> (C:\Program Files\Blue Prism Limited\Blue Prism Automate\VBO\BPA Object-MS Excel). Click Finish.



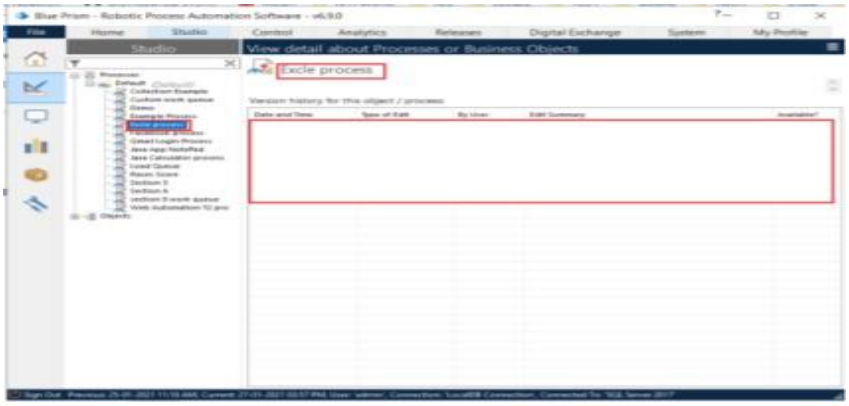
Acfivity 2: Creafing the Process Object from Object Studio

Process studio has only the Main page. We can call from the process studio. We use the Process studio for developing and tesfing.





Open Created Process Model (HR Payroll Process)

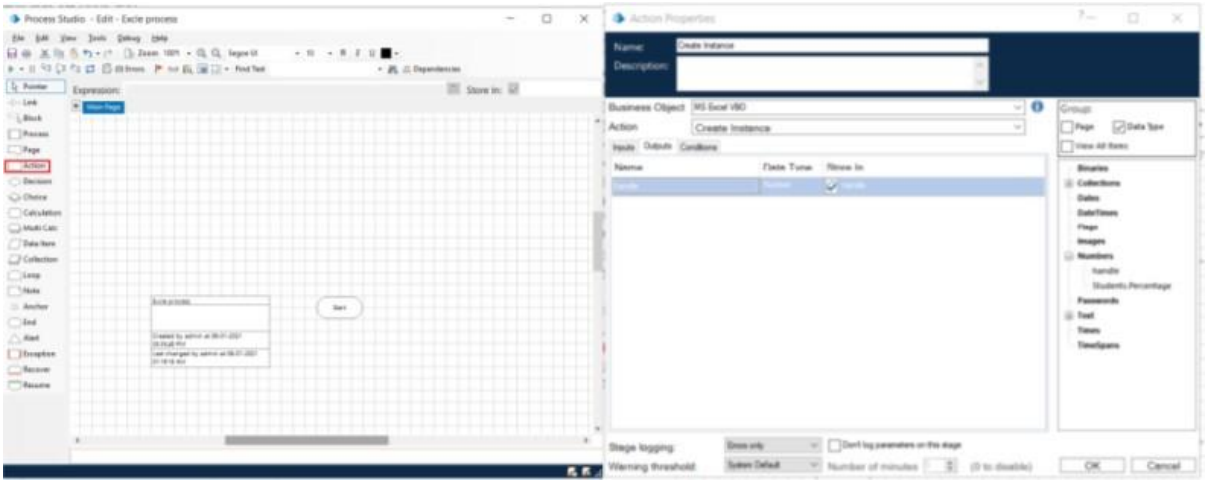


1. Create Acfion Stage as “Create Instance” (Business Object = MS Excel VBO; Acfion = Create Instance).

a. Click on the Outputs tab

I. Create Data Item, type = number, name = “handle”. Drag it into the store in column.

II. Click on ok.

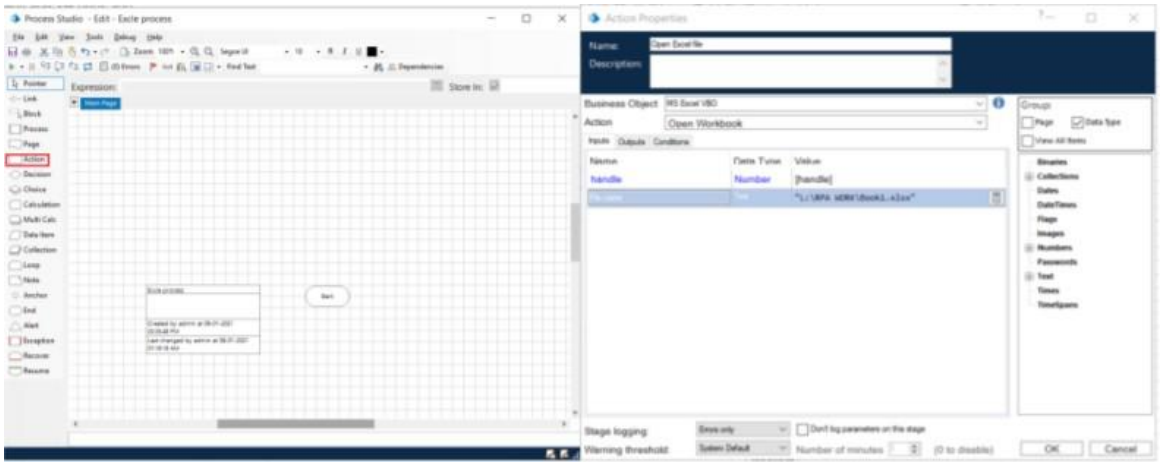


2. Create Acfion Stage as “Open Excel file” (Business Object = MS Excel VBO; Acfion = Open Workbook).

a. Click on the Inputs tab

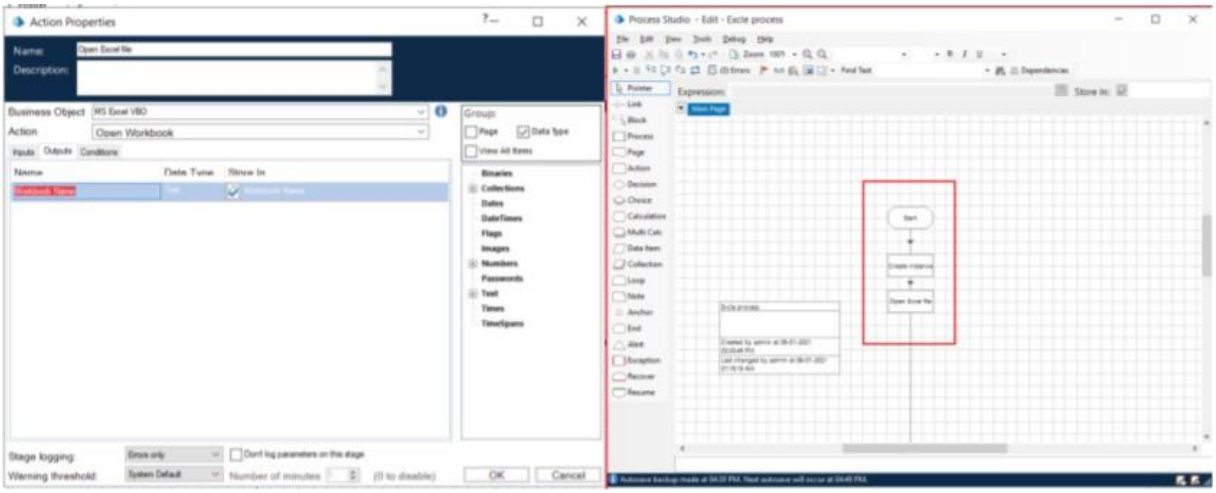
i. Drag “handle” data item into handle Value column.

ii. Set file path of excel file in File Name Value column



b. Click on the Outputs tab

i. Create Data Item, type = Text, name = “Workbook Name”. Drag it into the Store in column. Click on OK.



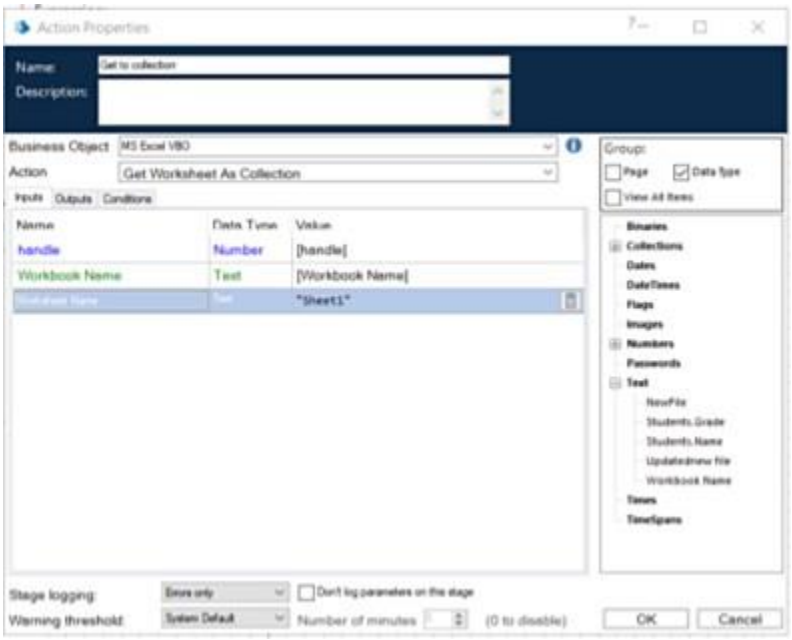
3. Create Acfion as “Get to collecfion” (Business Object = MS Excel VBO; Acfion = Get Workbook As Collecfion).

a. Click on the Inputs tab

i. Drag “handle” data item into handle Value column.

ii. Drag “Workbook Name” data item into the Workbook Name Value column

iii. Write Worksheet name as “Sheet1”.



b. Click on the Outputs tab

i. Create Collecfion as “Employee_”, with the following fields.

ii. Use Add Buton to add fields in collecfion.

Name	Type	Description	Fields
EMP ID	Number	Employee ID	
EMP NAME	Text	Name of the employee	
SAL RATE BASIC	Number	Basic salary rate	
SAL RATE DA	Number	Salary rate for DA	
SAL RATE HRA	Number	Salary rate for HRA	
TOTAL SALARY	Number	Total salary rate for employee	
ATTEND P	Number	Attendence for pay employee	
ATTEND PL	Number	Attend pay leave	
ATTEND WO	Number	Attend weekly off	
ATTEND PD	Number	Attend pay days	
GROSS BASIC	Number	Gross earnedbasic salary	
GROSS DA	Number	Gross earned DA	
GROSS HRA	Number	Gross earned HRA	
INCENTIVE	Number	Incentive offer for employee	
ESI AMT	Number	Deduction for ESI amount	
PF AMT	Number	Deduction for PF amount	
TDS	Number	Deduction for TDS	
PT	Number	Deduction for PT	

4. Drag Loop module, Drag Mulfi Calculafion module. Connect loop start with Mulfi Calc stage. Open Mulfi Calculafion Properfies and create the following fields.

a. [Employee_____.SAL RATE BASIC]*0.1

b. ([Employee___.SAL RATE BASIC+Employee_.SAL RATE DA])*0.3

c. [Employee_____.SAL RATE BASIC+Employee_
__.SAL RATE DA+Employee_____.SAL RATE HRA]

d. [Employee___.ATTEND P]+[Employee_
___.ATTEND PL]+[Employee_____
___.ATTEND WO]

e. ([Employee_____.SAL RATE BASIC]*[Employee_
.ATTEND PD])/31

f. ([Employee_____.SAL RATE DA]*[Employee_____.ATTEND PD])/31

g. ([Employee_.SAL RATE HRA]*[Employee_.ATTEND PD])/31

h. [Employee_.GROSS BASIC]+ [Employee_.GROSS DA]+
[Employee_.GROSS HRA]+ [Employee_.INCENTIVE]

i. [Employee_.TOTAL GROSS]*0.0075

j. ([Employee_.GROSS BASIC]+ [Employee_.GROSS DA])*0.12

k. [Employee_.ESI
AMT]+[Employee_.PF
AMT]+[Employee_.TDS]+[Employee_.PT]

l. [Employee_.TOTAL GROSS]-[Employee_.TOT DED]

5. Create Acfion Stage as “Write collecfion” (Business Object = MS Excel VBO; Acfion = Write Collecfion).

a. Click on the Inputs tab

i. Drag “handle” data item into handle Value column.

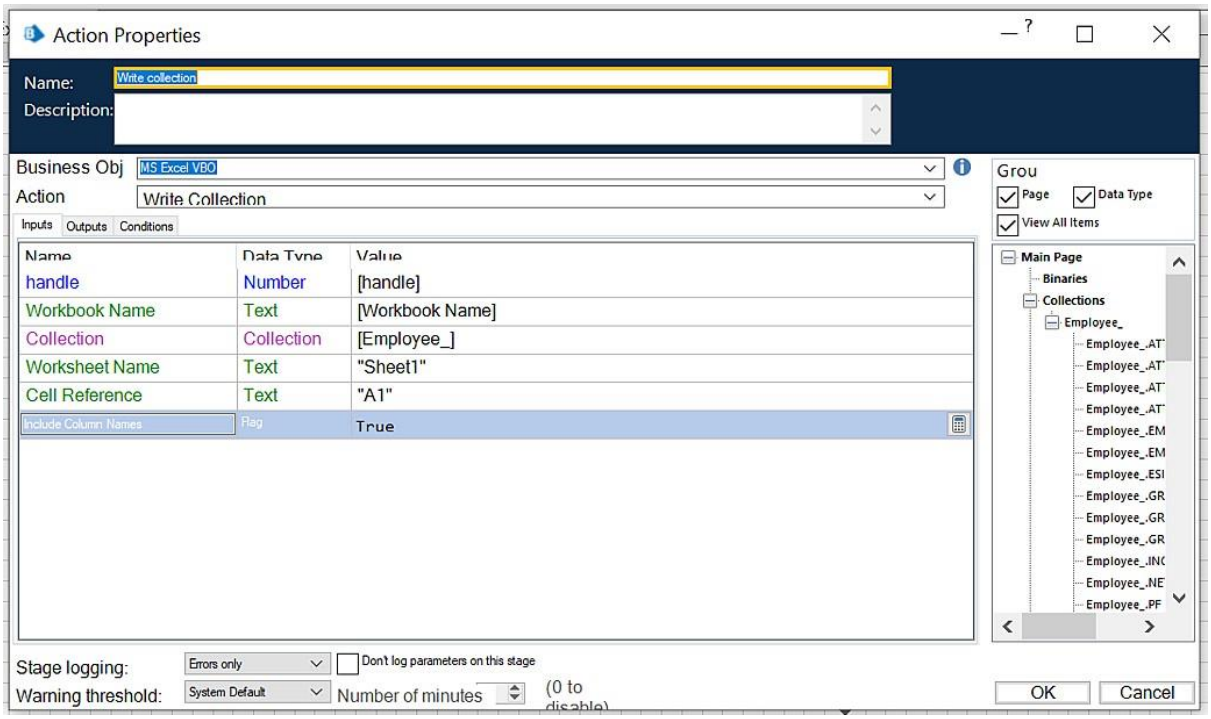
ii. Drag “Workbook Name” data item into the Workbook Name Value column.

iii. Drag “Employee” Collecfion into the Collecfion Value column.

iv. Write Worksheet name as “Sheet1”.

v. Write Cell Reference as “A1”.

vi. Set Include Column Names as True



6. Create Acfion Stage as “Save Excel file” (Business Object = MS Excel VBO; Acfion = Save Workbook).

a. Click on the Inputs tab.

i. Drag “handle” data item into handle Value column.

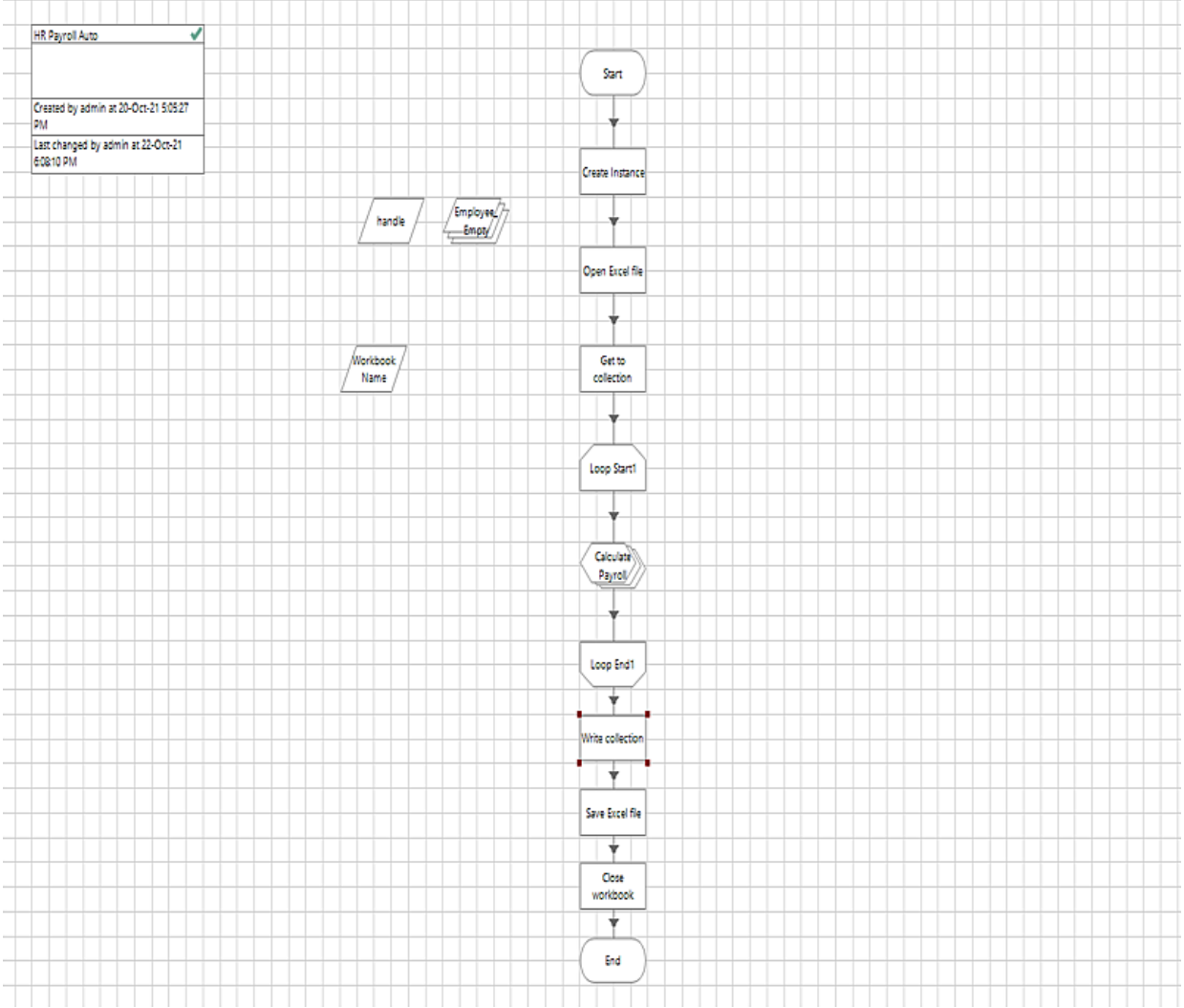
ii. Drag “Workbook Name” data item into the Workbook Name Value column.

7. Create Acfion Stage as “Close workbook” (Business Object = MS Excel VBO; Acfion = Close Current Workbook).

a. Click on the Inputs tab

b. Drag “handle” data item into handle Value column

c. Do connecfions as follows.

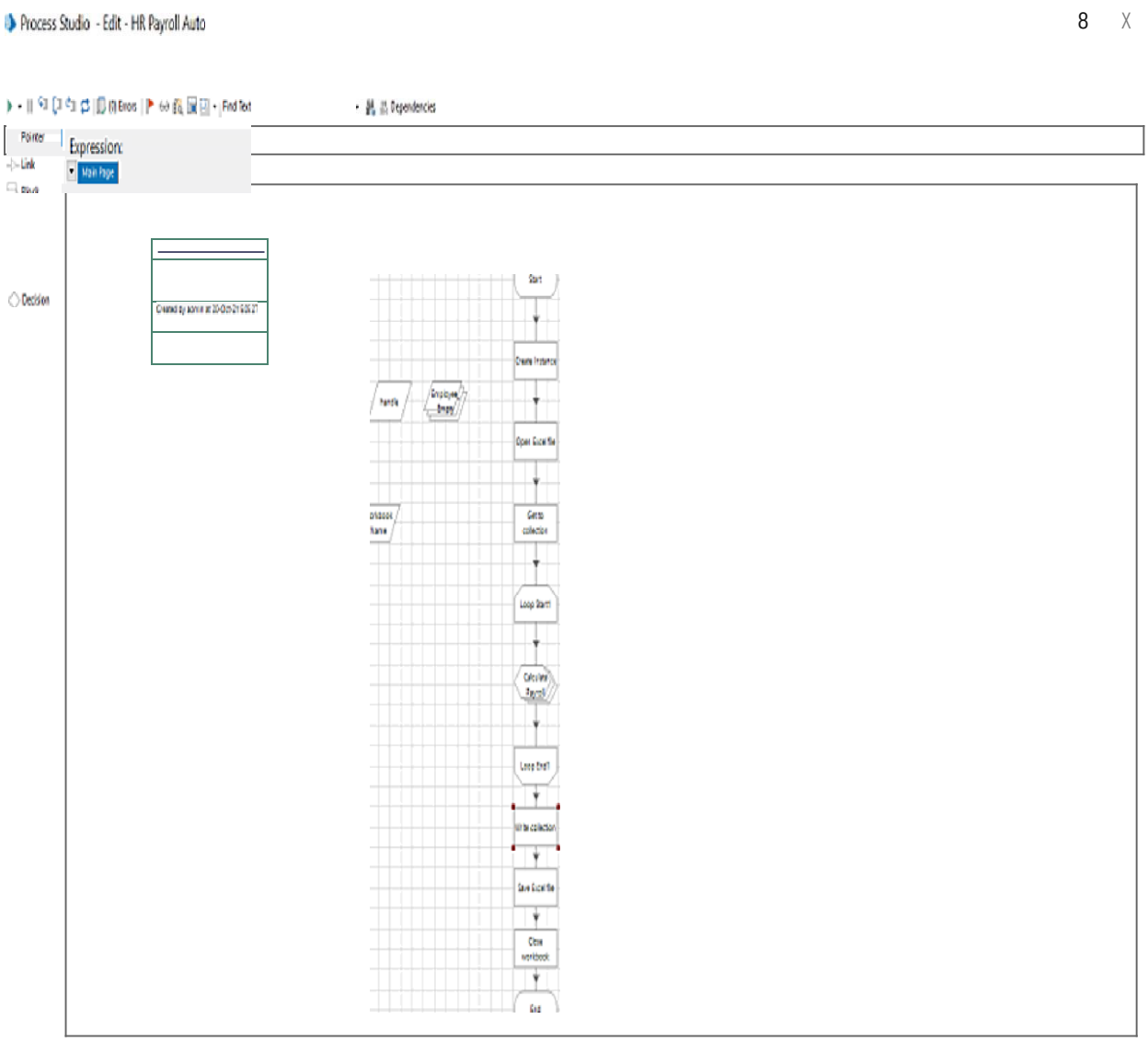


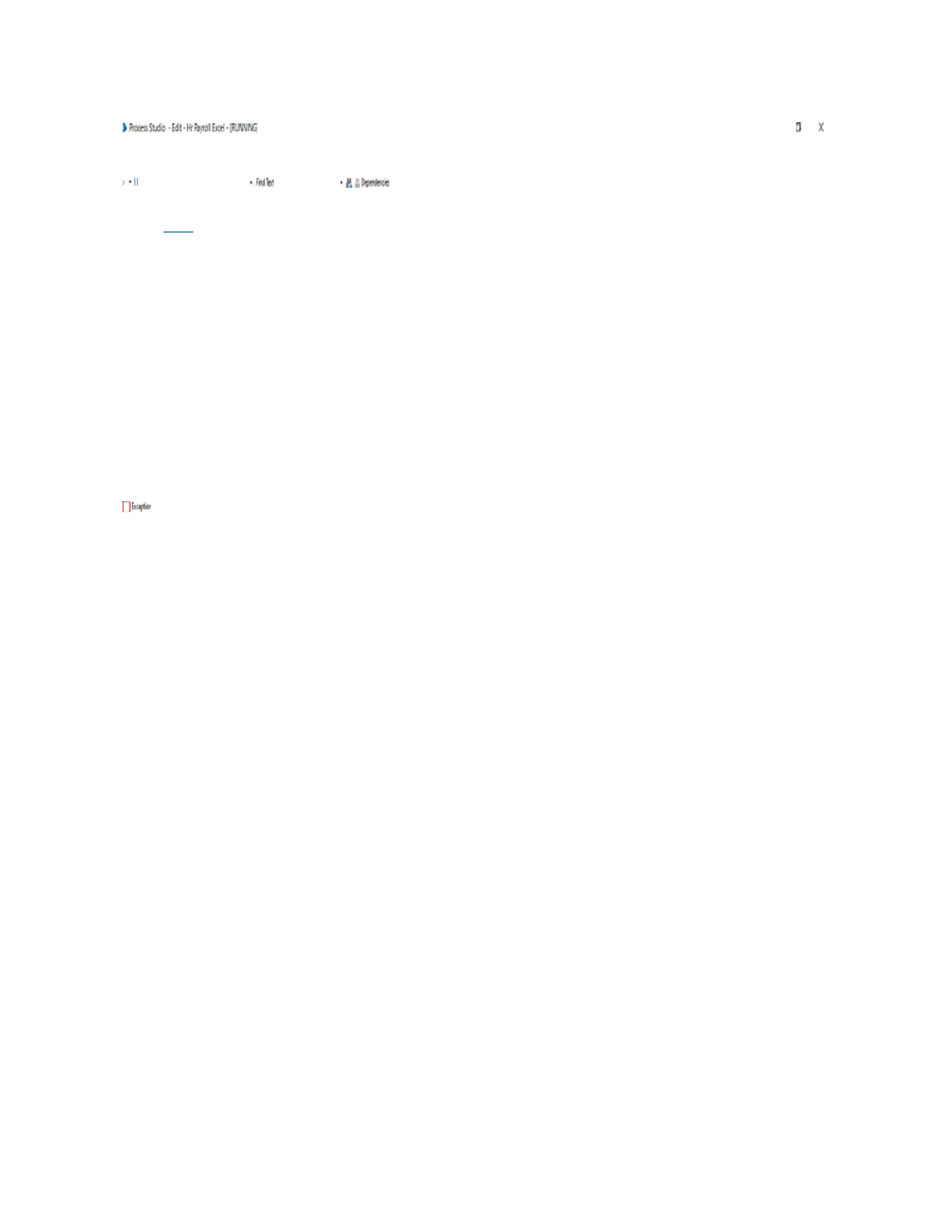
d. Input Excel file data

Acfivity 3: Tesfing the Process Object from Object Studio

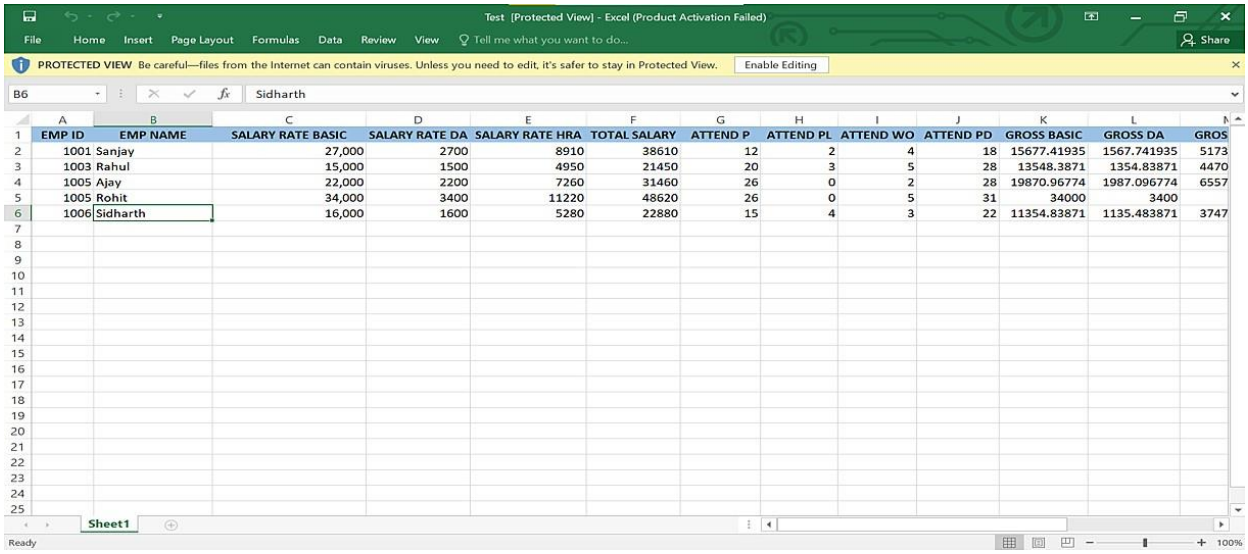
Click on the Main Page, click on the Green play buton to run the ‘Excel Process’ Process object. It shows COMPLETED when there is no error or no failure in the object.

Click on the Main Page, click on the Reset buton to reset the cache for rerun the process object as fresh.

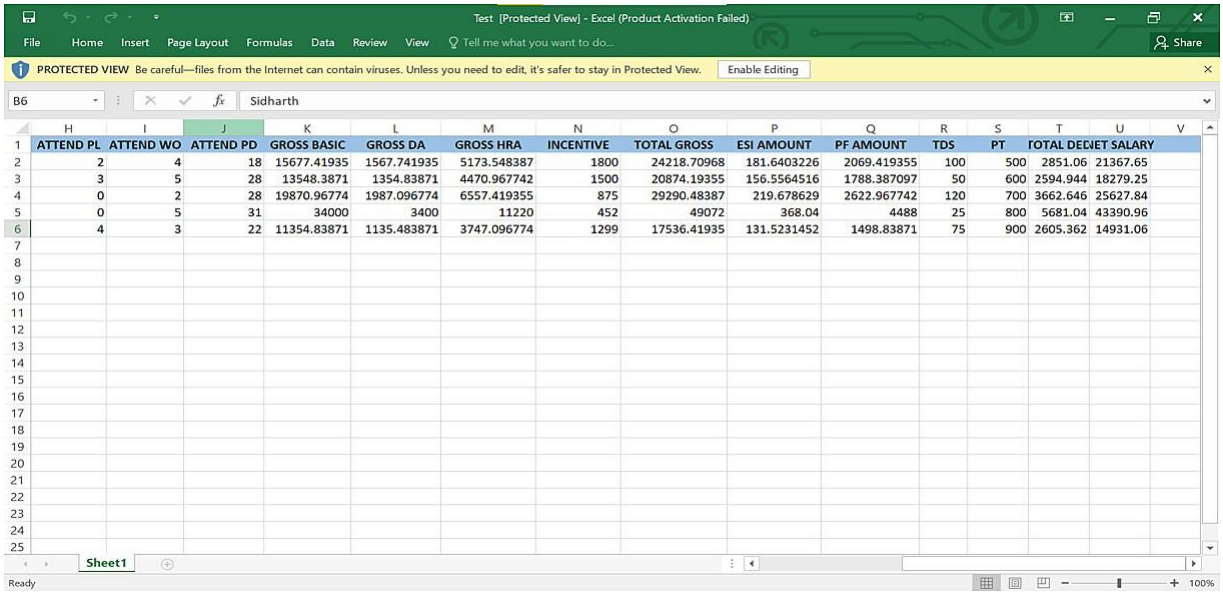

Process Studio - Edit - HR Payroll Auto
8
X
(0) Errors
Find Text
Dependencies
Pointer
Link
Expression:
Main Page
Decision
Start
Create Instance
Open Excel file
Get to collection
Loop Start
Loop End
Save Excel file
Close workbook
End


Process Studio - Edit - Hr Payroll Excel - [RUNNING]
Find Text
Dependencies
Exception

Output Excel file:



EMP ID	EMP NAME	SALARY RATE BASIC	SALARY RATE DA	SALARY RATE HRA	TOTAL SALARY	ATTEND P	ATTEND PL	ATTEND WO	ATTEND PD	GROSS BASIC	GROSS DA	GROS
1001	Sanjay	27,000	2700	8910	38610	12	2	4	18	15677.41935	1567.741935	5173
1003	Rahul	15,000	1500	4950	21450	20	3	5	28	13548.3871	1354.83871	4470
1005	Ajay	22,000	2200	7260	31460	26	0	2	28	19870.96774	1987.096774	6557
1005	Rohit	34,000	3400	11220	48620	26	0	5	31	34000	3400	
1006	Sidharth	16,000	1600	5280	22880	15	4	3	22	11354.83871	1135.483871	3747



ATTEND PL	ATTEND WO	ATTEND PD	GROSS BASIC	GROSS DA	GROSS HRA	INCENTIVE	TOTAL GROSS	ESI AMOUNT	PF AMOUNT	TDS	PT	TOTAL DEDUCT	NET SALARY
2	4	18	15677.41935	1567.741935	5173.548387	1800	24218.70968	181.6403226	2069.419355	100	500	2851.06	21367.65
3	5	28	13548.3871	1354.83871	4470.967742	1500	20874.19355	156.5564516	1788.387097	50	600	2594.944	18279.25
0	2	28	19870.96774	1987.096774	6557.419355	875	29290.48387	219.678629	2622.967742	120	700	3662.646	25627.84
0	5	31	34000	3400	11220	452	49072	368.04	4488	25	800	5681.04	43390.96
4	3	22	11354.83871	1135.483871	3747.096774	1299	17536.41935	131.5231452	1498.83871	75	900	2605.362	14931.06

5. CONCLUSION

The discussion of the effects of HR Automafion perceived buy the employees regarding both individual as well as organizafional perspecfive, presented in this Study is far from comprehensive. HR automafion influences people, organizafions, and sociefies in innumerable other ways. Perhaps we can idenfify some unique effects that Informafion Technology has on the way we live, learn, work, and play. Nevertheless, the variables studied in this research are sufficient to recognize that the changes caused by HR automafion introduce a variety of new issues for individuals and Organizafions and radically alter the importance of certain preexisfing cultures and pracfices. Each technology is likely to affect mulfiple groups of people, whether directly or indirectly. Moreover, the effects of any given technology are rarely only beneficial or only detrimental; they typically create a complex web of consequences that may be both posifive and negafive. This study and the enfire research reveal that evolufion of HR process automafion is not happening in a vacuum. Informafion technology has developed into an integral part of modern Organizafions, becoming interrelated with numerous aspects of the work environment. Further advances in informafion technology will inevitably reverberate in the culture of individuals, as well as organizafions. In the same manner, changes in the individual and organizafional work patern will create new demands that will encourage the development of new technologies. In order to understand the overall percepfion of the employees with respect to the benefits that an employee perceive at individual level, various tests were atempted. From the results it is clear that, employees perceive HR process automafion is beneficial for an organizafion as well as themselves. Employees believe that HR automafion will help in increase of access of informafion within the organizafion. This will further enhance the clarity of work as adequate and necessary informafion dissipafion. They agree that there is a fimely availability of informafion to carry on the work process due to automafion. Individuals agree that HR automafion has helped in the fimely credit of their salary or income and hence made the whole system of salary administrafion simple. From the study it can be observed that employees perceive HR automafion gives employees more autonomy at work. In order to understand the employee percepfion on the organizafional benefits in HR automafion within organizafions, the same tests were atempted.

From the result, it is clear that, HR automafion will increase the quality of HR delivery. It is also clear from the study that employees perceive, Automafing HR processes encourages beter and virtual feedback. They believe, automafing HR processes will help in building the concept of egalitarianism. A sense of togetherness within the organizafion. This will improve relafions and further enhance the organizafional culture. People also perceive that HR process automafion will make people more virtual. The major findings also include the fact that employees believe Automafing HR processes will not delay the decision making fime. Also, they disagreed to the fact that Automafing HR processes does not affect employee interacfion in an organizafion. The proposed can get detailed informafion about mobility of employee by adjusfing network. This Applicafion will help to automate payroll system of an organizafion. Mulfiple authorized users will be able to login and logout from a web browser. Login checks (username, password) are controlled by administrator. Administrator will have total control to completely customize the payroll system. Head of the department will be able to authenficate new employees, update exisfing employees pay, view reports while the operator may calculate pay and can only view reports. The system is user friendly. Whenever there is an error in entering data, it immediately shows an error.

SCOPE:

Recurring Payroll Services:

- Gross pay calculafion (basic salary, wage supplements, occasional payments, cost reimbursements)
- Calculafion of payroll related taxes and contribufions.
- Recording and processing of garnishments and other deducfions.
- Preparafion of payroll slips and other outputs broken down by employees or by cost centers for managerial and operafional use.
- Data recording and processing in connecfion with voluntary pension and health insurance funds, reporfing to the pension funds.
- Recording of wage and labor-related data

- Providing data and informafion for posfing into the General Ledger.
- Data reports and cerfificates related to payroll processing (to the tax and social security authorifies, the Stafisfical Office, etc.).

- Full range of Social Insurance management
- Tasks related to new comers and deparfing employees
- Annual services connected to payroll processing and social security administrafion
- Preparafion and submission of tax declarafions
- Payroll disbursement services:
- Movement of all payments, calculated during the pay processing cycle (net salary, tax, social security, etc.).
- Specified data reports for the Client's accounfing.
- Other services upon separate writen request including:
- Cafeteria management.
- Tax advisory.
- Labor management.
- HR consultancy

6. FUTURE ENHANCEMENTS

This salary management program can be further enhanced by a budget program in future. In budget program every team leader will have support to manage and ufilize specific amount of money in an efficient way with this amount he will manage everything like college expenditures etc. The prototype automated payroll system is complete in itself and ready to be implemented but changes and growth in requirements will be a reality on every sohware project so there is need to fimely update them. The same applies to this payroll system. There is always room for improvement, and the sohware we created can also be improved. This is especially because we had to create it within a limited fime. With more fime, the sohware can be improved to include security and different types of users. This would be the first step in making the sohware network-enabled, and eventually web-enabled. This was our original aherthought to programming the sohware, and we had chosen Blue Prism. In addifion, the sohware can also be improved in terms of the calculafions it can do, and more flexibility in the rates used in calculafions per employee.

7. BIBLIOGRAPHY AND REFERENCES

1. Ball KS. The use of human resource informafion systems: a survey. Personnel review. 2001; 30(6):677-693.

2. Beadles II, Aston N, Lowery CM, Johns K. The impact of human resource informafion systems: An exploratory study in the public sector. Communicafions of the IIMA. 2005; 5(4):6.

3. Bell BS, Lee SW, Yeung SK. The impact of e-HR on professional competence in HRM: Implicafions for the development of HR professionals. Human Resource Management. 2006; 45(3):295-308.

4. Broderick R, Boudreau JW. Human resource management, informafion technology, and the compefifive edge. The Executive. 1992; 6(2):7-17.

5. Fernández-Sánchez JA, de Juana-Espinosa S, Valdés Conca, j. use of HRIS in recruitment process.