

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The project focuses on revolutionizing the traditional process of hall ticket generation through the implementation of UiPath, a powerful robotic process automation (RPA) tool. In conventional settings, the manual creation of hall tickets for academic assessments or events can be a time-consuming and error-prone endeavor. This automation initiative seeks to streamline and enhance this crucial administrative task by leveraging the capabilities of UiPath. By introducing automated workflows for data extraction, dynamic hall ticket generation, and integration with UiPath Orchestrator, the project aims to significantly improve efficiency, accuracy, and scalability.

The system not only mitigates the risks associated with manual errors but also ensures a swift and customizable approach to generating personalized hall tickets. As institutions and event organizers grapple with increasing demands, this project emerges as a solution to alleviate administrative burdens, reduce resource expenditure, and ultimately provide a seamless and error-resistant platform for the essential process of hall ticket issuance. Through this transformative endeavor, the project envisions a future where the meticulous task of hall ticket generation becomes a streamlined, automated, and user-friendly experience.

1.2 OBJECTIVE

The primary objective of this project is to automate the hall ticket generation process using UiPath, with the overarching goal of enhancing efficiency, accuracy, and overall productivity. By leveraging the capabilities of UiPath Studio and Orchestrator, the project aims to streamline the extraction of relevant data, dynamically generate personalized hall tickets, and facilitate centralized management and monitoring of the entire process. The automation of this critical administrative task seeks to significantly reduce manual effort, minimize errors, and improve scalability to accommodate varying volumes of hall tickets.

1.3 EXISTING SYSTEM

In the existing system of hall ticket generation, the process is predominantly manual and often characterized by inherent inefficiencies and limitations. Institutions and event organizers typically rely on labor-intensive procedures involving data entry, validation, and formatting to produce individualized hall tickets for participants. This manual approach is susceptible to errors, including data inaccuracies, typos, and inconsistencies, which can have significant repercussions during academic assessments or events. Moreover, the manual system tends to be time-consuming, especially when dealing with large cohorts of participants, leading to delays in the distribution of hall tickets. The lack of a centralized system also poses challenges in terms of coordination and monitoring.

1.4 PROPOSED SYSTEM

The proposed system for hall ticket generation represents a transformative shift towards efficiency, accuracy, and scalability through the implementation of UiPath, a leading robotic process automation (RPA) tool. In this innovative solution, the manual processes of data extraction, validation, and hall ticket creation are replaced with automated workflows designed to intelligently handle these tasks. Leveraging UiPath Studio, the system ensures dynamic and error-free generation of personalized hall tickets, customized to meet specific event or institutional requirements. The proposed system not only eliminates the laborious and error-prone aspects of manual hall ticket generation but also enhances scalability to efficiently manage varying volumes of hall tickets. With an intuitive user interface, the proposed system aims to provide a user-friendly experience for administrators and users involved in the hall ticket generation process. Scalability enhancements underscore the system's capacity to efficiently manage varying volumes of hall tickets for both small-scale and large-scale events. Collectively, these components fortify the proposed system, offering a sophisticated, adaptive, and secure solution for the streamlined generation of hall tickets in academic and event contexts.

CHAPTER 2

LITERATURE REVIEW

<https://det.kerala.gov.in/images/15/aitt/halldown715.pdf>

Advantages : Generating hall tickets for government exams provides several significant advantages. Firstly, it enhances overall efficiency by streamlining the entire exam preparation process. This automation reduces the burden of manual work for both candidates and exam authorities, allowing them to focus on other critical tasks. Secondly, the use of automated systems significantly improves the accuracy of hall ticket generation, minimizing the likelihood of human errors and ensuring that candidates receive the correct and error-free hall tickets.

Disadvantages : Technical issues and system failures are another concern. Automated systems are not immune to glitches or breakdowns, potentially disrupting the hall ticket generation process and causing inconvenience for candidates. Maintaining a reliable IT support system becomes crucial to promptly address and resolve any technical challenges that may arise.

Resistance to change among staff members who are accustomed to manual processes is also a potential disadvantage. Adapting to new technology can be met with reluctance and may necessitate additional training and a well-planned change management strategy to ensure a smooth transition.

Existing literature on automation in examination systems emphasizes the need for reliable and error-free processes, particularly in activities such as hall ticket generation. Automated systems not only reduce the likelihood of human errors but also contribute to faster and more accurate data processing. The integration of RPA tools like UiPath is identified as a key enabler for enhancing the overall efficiency and effectiveness of examination-related tasks.

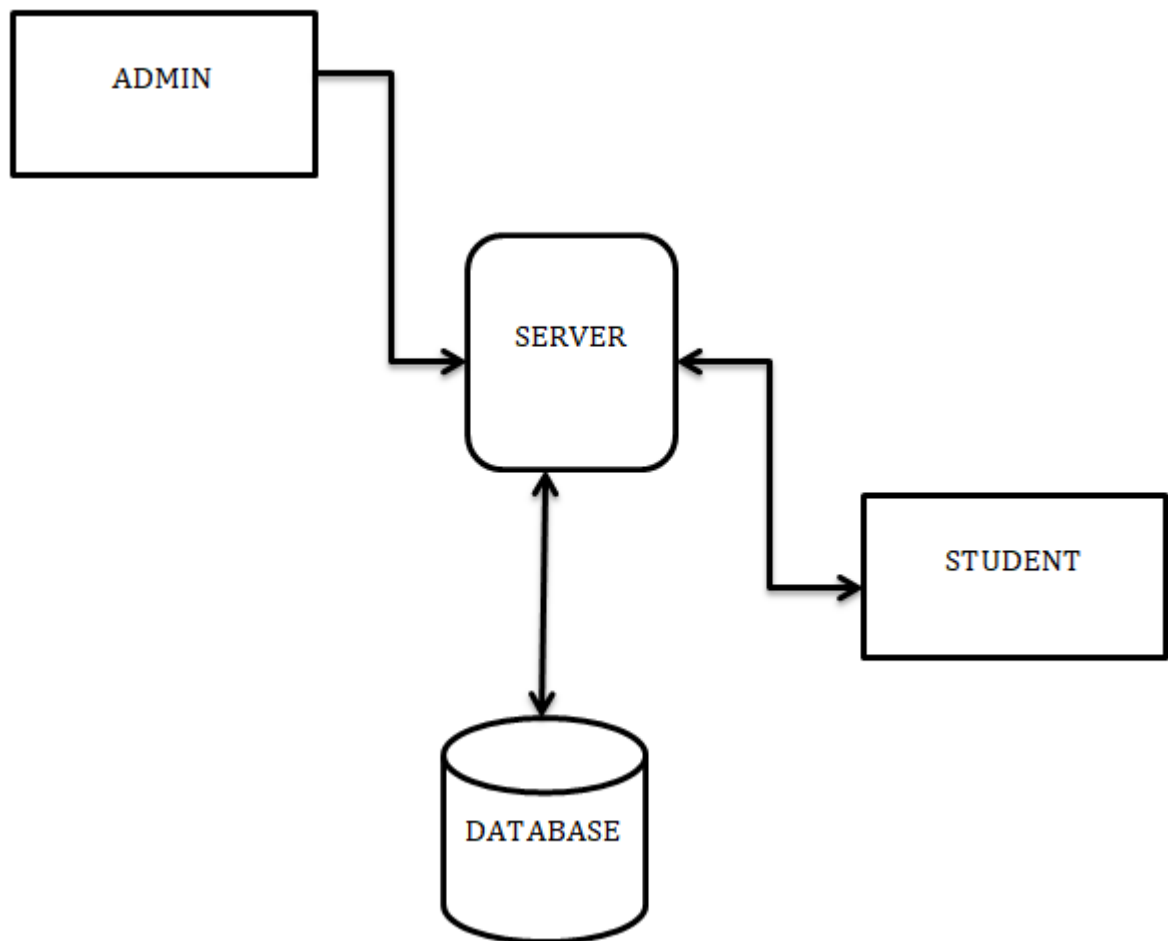


Fig. 2.1 Hall ticket generation work flow

CHAPTER 3

SYSTEM DESIGN

3.1 SYSTEM FLOW DIAGRAM

A flowchart is a type of diagram that represents an algorithm, workflow or process. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem.

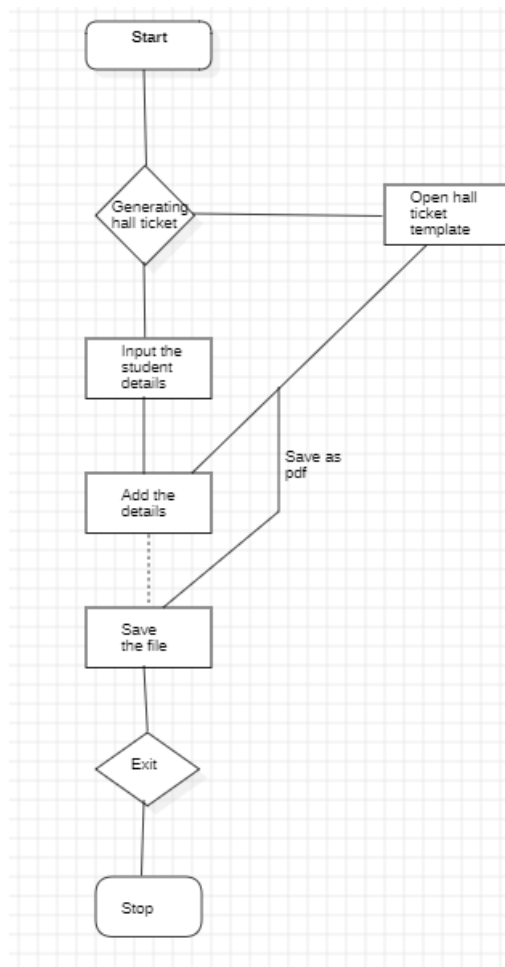


Fig 3.1 System Flow Diagram

3.2 ARCHITECTURE DIAGRAM

An architecture diagram is a graphical representation of a set of concepts, that are part of an architecture, including their principles, elements and components. The architectural diagram for the proposed hall ticket generation system using UiPath is designed with a focus on modularity, flexibility, and efficiency. At the core of the architecture lies UiPath Studio, the development environment where intricate automation workflows are crafted.

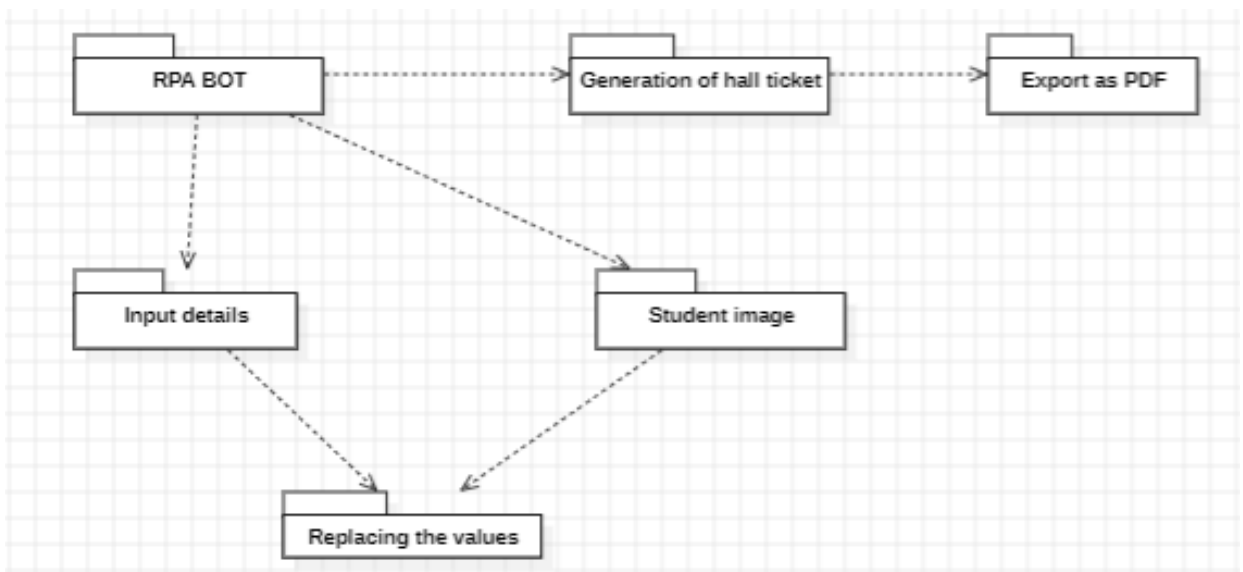


Fig 3.2 Architecture Diagram

3.3 SEQUENCE DIAGRAM

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. The integration with UiPath Orchestrator takes center stage in the sequence, exemplifying a centralized control hub that manages, schedules, and monitors the entire hall ticket generation workflow. UiPath Orchestrator ensures a synchronized execution of the process, providing administrators with a centralized platform for overseeing and managing the automation process.

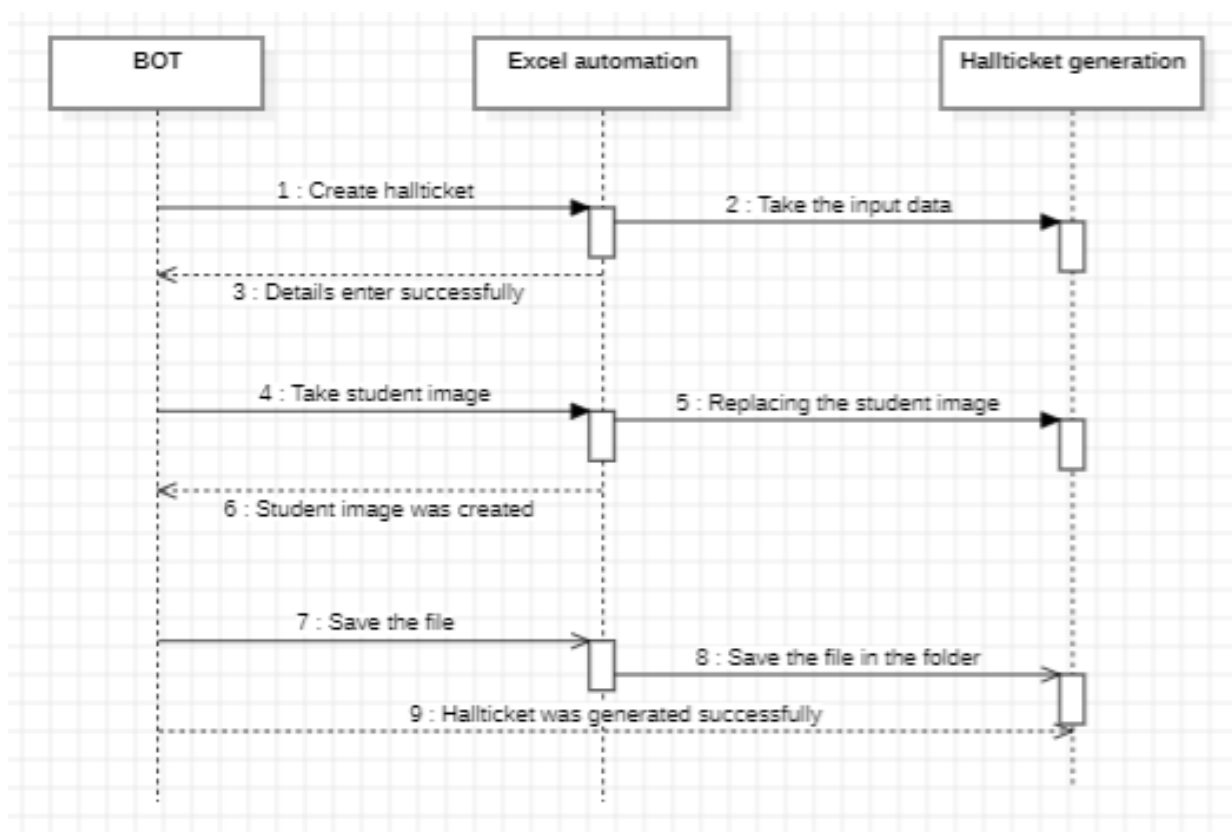


Fig 3.3 Sequence Diagram

CHAPTER 4

PROJECT DESCRIPTION

4.1 MODULES

4.1.1 DATA EXTRACTION

The Data Extraction Module within the proposed hall ticket generation system plays a pivotal role in ensuring the seamless retrieval of accurate and up-to-date participant information, forming the foundation for the subsequent automated workflows. This module interfaces with databases or relevant input sources, leveraging UiPath Studio's capabilities to initiate the extraction process. The integration is designed to be versatile, accommodating various data sources commonly used in academic or event settings. Using predefined rules and criteria, the Data Extraction Module systematically fetches participant details such as names, identification numbers, and other relevant data required for hall ticket generation. It is adept at handling structured and unstructured data, adapting to the diverse formats that participant information may reside in. The module is meticulously designed to not only ensure the accuracy of the extracted data but also to provide a reliable and constant feed that fuels the subsequent stages of dynamic hall ticket generation. This robust data extraction mechanism enhances the overall efficiency of the system by eliminating manual data entry, reducing errors, and enabling a streamlined, error-resistant process for generating personalized hall tickets.

4.1.2 DYNAMIC HALLTICKET GENERATION

The Dynamic Hall Ticket Generation module represents a pivotal component within the proposed system, encapsulating the intelligence and adaptability of the automated workflow. This module is meticulously designed within UiPath Studio, leveraging its capabilities to dynamically generate personalized hall tickets based on extracted participant data. The process begins with the integration of data seamlessly obtained from the Data Extraction Module, ensuring a constant feed of accurate and up-to-date information. UiPath Studio orchestrates a flexible and responsive hall ticket creation, allowing for customization based on specific event or institutional requirements. The Dynamic Hall Ticket Generation module not only automates the creation of individualized hall tickets but also introduces efficiency by eliminating manual interventions. The system can adapt swiftly to changes or updates, ensuring the seamless integration of last-minute modifications without compromising accuracy. The user-friendly design of this module within the UiPath Studio allows administrators to effortlessly configure and optimize the dynamic hall ticket generation process, contributing to an overall efficient and responsive solution for academic assessments or events. This module, therefore, stands as a testament to the adaptability and precision afforded by UiPath, providing a streamlined solution to the traditionally labor-intensive task of hall ticket generation.

4.1.3 INTEGRATING MODULE WITH UIPATH ORCHESTRATOR


The integration module with UiPath Orchestrator plays a pivotal role in the proposed hall ticket generation system, serving as the centralized control and coordination hub for the entire automation workflow. This module facilitates seamless communication between UiPath Studio and UiPath Orchestrator, ensuring a synchronized and efficient execution of hall ticket generation processes. UiPath Orchestrator acts as the command center, enabling administrators to centrally manage, schedule, and monitor automation tasks. Through this integration, administrators gain real-time visibility into the progress of hall ticket generation, allowing them to track key metrics, identify bottlenecks, and make informed decisions. The module ensures that the automation processes are orchestrated systematically, promoting a streamlined and organized workflow. Additionally, UiPath Orchestrator enhances the system's scalability by efficiently handling varying workloads and enabling the execution of multiple hall ticket generation tasks concurrently. Overall, the integration with UiPath Orchestrator enhances the proposed system's manageability, scalability, and overall effectiveness, making it a cornerstone for the successful deployment and execution of automated hall ticket generation workflows.

CHAPTER 5

OUTPUT SCREENSHOTS

Rajalakshmi Engineering College
UG Degree Examination – Dec 2023
HALL TICKET

University Register No	R2116	Current Semester	5
Reg no	AX	DOB	CX
Name	BX		
Degree & Department	DX		
College	Rajalakshmi Engineering College		



FN: 09:30 AM TO 12:30 PM, AN:02:00 PM TO 05:00 PM

Table

1.The Hall Ticket will be valid only with the Photograph attested by the Principal
 2.The students are instructed to contact the Principal for changes (if any) related to Time




 Signature of the candidate	 Signature of the Principal	 Controller of Examinations
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Fig 5.1 Hall ticket template

Reg.No	Name	Degree	DOB
211701036	Naren	V CSD	10-02-2004
211701504	Muthukumar	V CSE	24-09-2002
211701051	Shugavaneshwar	V AIML	24-03-2004

Sem	Code	Subject	Date	Session
V	CD10PO3	Image processing	07.10.2023	FN
V	OAI1903	Robotic Automation	10.10.2023	FN
V	CS19541	Computer Network	11.10.2023	FN
V	CD19541	Animation & Graphics	12.10.2023	FN

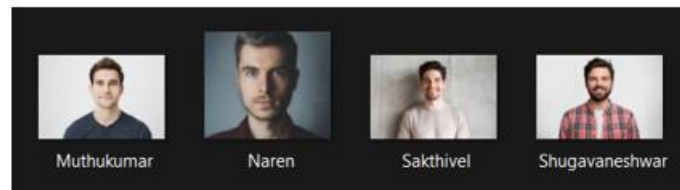


Fig 5.2 Input data

Rajalakshmi Engineering College
UG Degree Examination – Dec 2023
HALL TICKET

University Register No	R2116	Current Semester	5
Reg no	211701036	DOB	10-02-2004
Name	Naren		
Degree & Department	CSD		
College	Rajalakshmi Engineering College		

FN: 09:30 AM TO 12:30 PM, AN:02:00 PM TO 05:00 PM

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<p>Signature of the candidate</p>	<p>Signature of the Principal</p>	<p>Controller of Examinations</p>
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Fig 5.3 Generated Hall ticket

CHAPTER 6

CONCLUSION

In conclusion, the automated hall ticket generation project using UiPath represents a significant leap forward in streamlining administrative processes within academic and event management contexts. By leveraging the power of UiPath Studio and Orchestrator, the system achieves a harmonious blend of efficiency, accuracy, and scalability. The dynamic interplay of components, from data extraction to the personalized generation of hall tickets, demonstrates a commitment to precision and adaptability. The integration with UiPath Orchestrator emerges as a linchpin, providing centralized control, monitoring, and scheduling capabilities, crucial for the successful orchestration of automated workflows.

More features that can be introduced in the coming future are :

- 1). Biometric Authentication
- 2). Smart QR Codes
- 3). Self-Service Ticket Reprints
- 4). Integrated Feedback System

APPENDIX

SAMPLE PROCESS

1 Use Excel File

Excel file

N:\Project rpa\Details.xlsx

+

Reference as

Excel

☐ Save changes ☐ Create if not exists

Read formatting Same as project

☐ Template file

1.1 For Each Excel Row

For each

CurrentRow

In range

1.1 For Each Excel Row

For each

CurrentRow

In range

[Excel] Students

+

☒ Has headers ☐ Save after each row

1.1.1 Use PowerPoint Presentation

PowerPoint file

Sample hall ticket [Autosaved].pptx

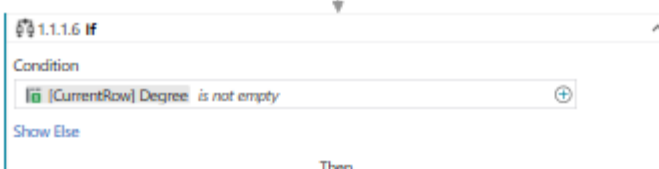
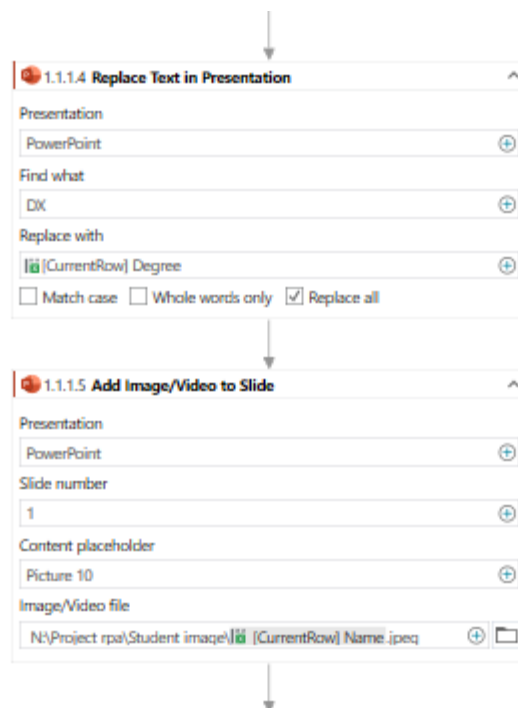
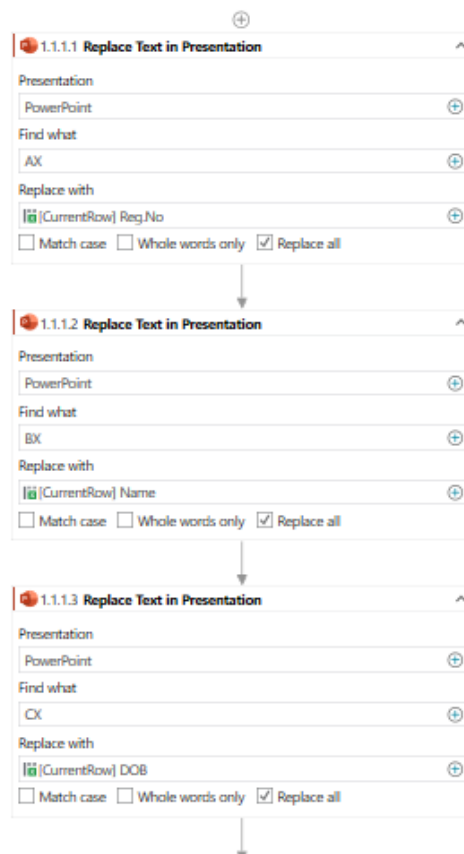
+

Reference as

PowerPoint

☐ Save changes ☒ Create if not exists

☐ Template file



1.1.1.6 If

Condition

[CurrentRow] Degree is not empty

Show Else

Then

1.1.1.6.1 Switch

Expression [CurrentRow] Degree

Default	Group
Case V CSD	Sequence
Case V CSE	Sequence
Case V AIML	Sequence

Add new case

1.1.1.6.1.3 Add Data Table to Slide

Presentation PowerPoint

Slide number 1

Content placeholder TextBox 13

Table to add [Excel] V AIML

☐ Exclude source headers

Behavior Overwrite existing data

1.1.1.6.1.4 Save Presentation as PDF

Presentation PowerPoint

Save as file Hallticket [CurrentRow] Name .pdf

☒ Replace existing

Add new case

REFERENCES

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- <https://www.soais.com/soais-hackathon-use-cases-automated-data-validation-and-admit-card-generation-using-uipath/>
- <https://takeoffprojects.com/project-details/hall-ticket-generation-system--6793>
- <https://www.edusys.co/en-in/hall-ticket-admit-card-generator.html>