

# Cowin Vaccine booking using RPA

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**Abstract:** Robotic process automation (RPA) is a newly developed technology that automates repetitive, rule-based, routine human processes with the goal of providing benefits to the organisations who commit to implementing such software.. We can implement Automation developed through RPA to real-life scenarios. In this paper we are going to discuss how we can implement our Automation for Cowin Vaccine slot booking. The Government of India has started the web portal for Cowin Self registration on Cowin.gov.in portal through this portal covid Vaccine Registration 2022 can do online. The Citizens Can Now Book the Cowin vaccine Slot through the portal or the Cowin Vaccinator app. The Government of India have also provided Cowin API which help developers to work with API and implement all the features to their application.

## INTRODUCTION

Coronavirus disease (COVID-19) is a communicable disease caused by the SARS-CoV-2 virus. Coronavirus started within the year 2020 since then many folks are laid low with the disease and increasing day by day. the majority. Those infected with COVID-19 will have mild - to - moderate symptoms and will recover without any special treatment. Some, however, will become critically ill and require medical attention. When an infected person coughs, sneezes, speaks, sings, or breathes, the virus can spread in small liquid particles from their mouth or nose. These particles range in size from large respiratory droplets to tiny aerosols. You can become infected by breathing the virus if you are in close proximity to someone that has COVID-19, or just by contacting a surface or object with your eyes, nose, or mouth.

The Government of India has started the web portal for Cowin Self registration on Cowin.gov.in portal through this portal covid Vaccine Registration 2022 can do online. The Citizens Can Now Book the Cowin vaccine Slot through the portal or the Cowin Vaccinator app. the govt. has tried to create the vaccination process as easy as possible. The Cowin portal allows Citizens to self-register for the Cowin vaccine slot booking for Cowin 1st and 2nd Dose of Vaccine. All citizens above the age of 18 years can book the Cowin Vaccine Slot on the Cowin portal or the Umang app. Using RPA (Robotic Process Automation) we can automate the process of Cowin vaccine slot booking from which employees can easily get slot without any hustle and concentrate on their work.

One of the emerging replacement technologies is robotic process automation (RPA), which can replace workers on repetitive work and automate them, allowing employees to be involved in more complex tasks that add value to the organisation. RPA is defined as the use of specialised technology and methodologies that rely on software and algorithms to automate recurring human tasks. Through this paper we can learn that how we can automate the process of vaccination slot booking using Robotic process automation. Which helps companies/organizations as well as employees to save time and concentrate more on their daily chores.

## LITERATURE SURVEY

Author(s): Ozge Doguc (Robotic Process Automation and Its Future, 2022), Several software automation techniques have been developed in the last decade to reduce costs, increase customer satisfaction, and eliminate errors. RPA provides software robots (bots) that can imitate human behaviour. Attended robots work hand in hand with humans and may operate whereas the human agent is on the computer. Unattended robots, on the other hand, operate behind locked computer monitors and are designed to perform automations which do not require human intervention. RPA robots have computer science engines such as machine learning and computer vision, and both types of robots can gain knowledge automations by recording human behaviour.

Author(s): Damian Kedziora, Kari Smolander (Responding to Healthcare Emergency Outbreak of COVID-19 Pandemic with Robotic Process Automation (RPA)), Robotic process automation (RPA) is a type of software that automates various business processes that were previously performed by office employees (Osmundsen et al., 2019). It has recently reached the status of technological advance, allowing various organisations to automate a wide range of manual tasks, methods, and supply chain segments. RPA has provided numerous benefits to businesses, including the ability to reduce financial

and operational expenditures, increase compliance and quality of delivery, free personnel from mundane and nonvalue-added tasks, and enable 24/7 operations with short analysis lead times (Kedziora and Kiviranta, 2018).

Author(s): Rishabh Jain, Roheet Bhatnagar (Robotic process automation in healthcare-a review), Robotic Process Automation (RPA) is a disruptive technology that is finding its applications in domains where task repetition is common. RPA can improve the efficiency and cost of operations for companies who are using it. Automation can help reduce the human involvement in repeated tasks, which can improve accuracy and reduce errors. It can work 24/7 without interruption, and also have a precise result with advance for businesses

Author(s): Cem Dilmegani (RPA in Healthcare: Benefits, Use Cases and Case Studies in 2022), In healthcare systems, multiple demanding duties and stringent constraints, such as claims services and clinical scheduling, exist and necessitate significant resource allocation. As a result, there are inefficiencies, high operating costs, and processes that are delayed. Healthcare providers can overcome these challenges by leveraging the potential of automation and RPA to improve the efficiency of healthcare systems, the speed of healthcare processes, and overall patient satisfaction. Healthcare providers can avoid costly, time-consuming digital transformation implementation projects and reap quick dividends from RPA and intelligent automation, enabling them to devote resources to healthcare delivery.

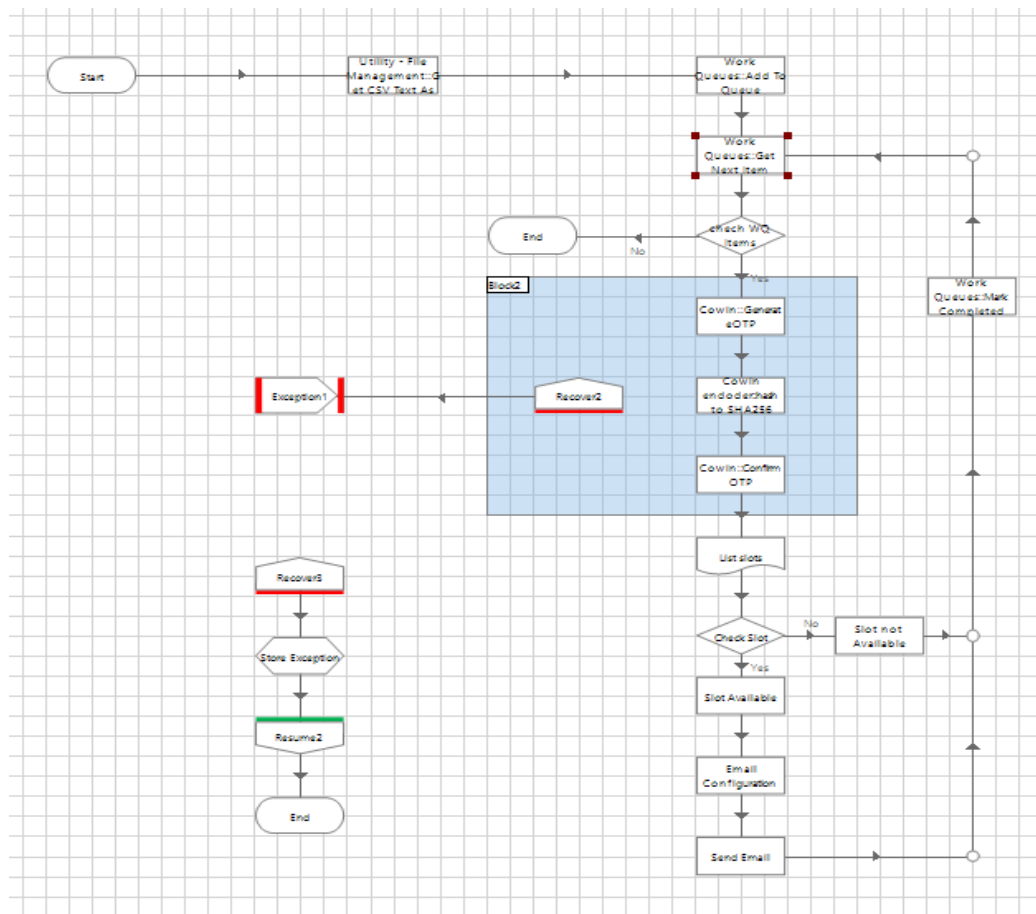
Author(s): Lucija Ivančić (Robotic Process Automation: Systematic Literature Review) Robotic process automation (RPA) is a new technology that focuses on automating routine, repetitive, rule-based human processes with the goal of providing advantages to the businesses who choose to adopt such software. The scholarly literature on RPA is still lacking because it is a newer technology that has recently entered the market. Therefore, the purpose of this article is to ascertain how RPA is defined by the academic community and the amount to which RPA has been examined in the literature in terms of its status, trends, and applications. Also discussed is the distinction between RPA and business process management. To do this, a systematic review of the literature (SLR) using the Web of Science and Scopus databases was carried out.

Author(s): Devansh Hiren Timbadi (Robotic Process Automation Through Advance Process Analysis Model) Robotic process automation (RPA) is a cutting-edge technique that creates a smart software robot capable of simulating human interactions with a commercial process. RPA is a useful automated technique that employs software agents to communicate in a human-like manner via a graphical user interface. RPA can be used in a wide range of industries, including finance and banking, human resources, healthcare, and so on. We proposed our RPA process analysis model in this paper and compared it to a traditional model using a variety of comparison parameters such as change frequency, levels of complexity, time needed, screen usage, and transaction volume. In terms of efficiency, we found that the proposed method surpassed the conventional method.

## **METHODOLOGY**

There are numerous tools available for developing automation and deploying bots. Different tools require varying degrees of development and execution. UI path, Automation Anywhere, Blue prism, Selenium, Pega, and Nice systems are some tools that can be used to develop automation. Blue prism automation is used for our automation. Blue prism allows us to use API for automation. We can integrate API from the service and convert API features into different Blue prism actions. We can populate the data to the Work queues using Blue prism, and the bot will collect data from the Work queue and perform on the item.

The following figure illustrate our main process or we can say architecture which we are using for our automation. This architecture is developed in the blue prism which also acts as main process. This process consists of all the modules which acts as sub process in our automation.



## IMPLEMENTATION

We'll look at how the code is used to develop the Automation. We must first configure the Cowin API in Blue prism Web API services, and then add the GET and POST URLs used to send and receive data from the API. To begin, we must create all of the request and response configurations in the blue prism's Web API services. Later, when building the Automation process, we use these configurations as Objects. We must later move the work queue to Automation. The Work Queue contains all of the Users' data in Rows and Columns format. The user data is usually populated as a queue, and the bot later uses data from the queue row by row to pass to the API. Later, the API response bot will proceed the next stage until the end stage is reached or an exception occurs. If the item is completed, it should be marked completed in the work queue; if it is not completed, this should be marked as exception in the work queue. We must convert the OTP to SHA256. Other modules, such as determining whether the OTP is valid and whether the slot is available, are also included. If the valid is invalid or the slot is not available, the automation will fail.

The methodology that we are currently employing is known as Agile Delivery methodology, or Scrum methodology. Sprints are used in scrum methodology to develop applications. Where each sprint implements a different set of features for our project. More features will be introduced to our automation as the sprint progresses. We are going to add the following features to the current scrum sprint: The user is adding data to the CSV. Connecting to the Cowin API setu, automation Using the Token key to authorise the API, Requesting a phone number to confirm an OTP GET request, Taking user input, authorising the otp via POST request, server sending response code for authorization, and listing all districts in the state, listing all the available slots in the Districts, send mail to the user if slots are available.

## CONCLUSION

Robotic process automation (RPA) arises as a brand new technology focused on the automation of repeated, regular, principle based human tasks, with the goal of bringing benefits to organisations that commit to implementing such software. From this paper we can learn that how Robotic Process Automation can be used to Automate the process of Covid Vaccine slot booking, Blueprism provides the feature of Work Queue where we can load all the data to the csv or excel file which can be passed to our automation. Our Automatic can save lot of time for employees as well as industries,

this automation also eases the slot booking where users can only concentrate on their work. This model can be further used for complex tasks by adding more features, At the End of the day all the things we develop are used to save time and ease tasks for humans. This is what our Automation does!

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