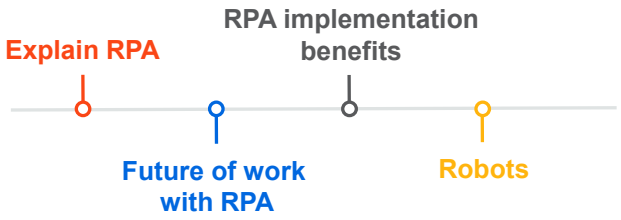
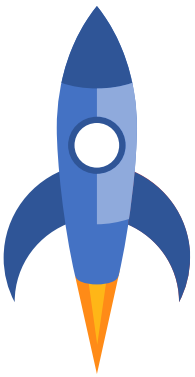
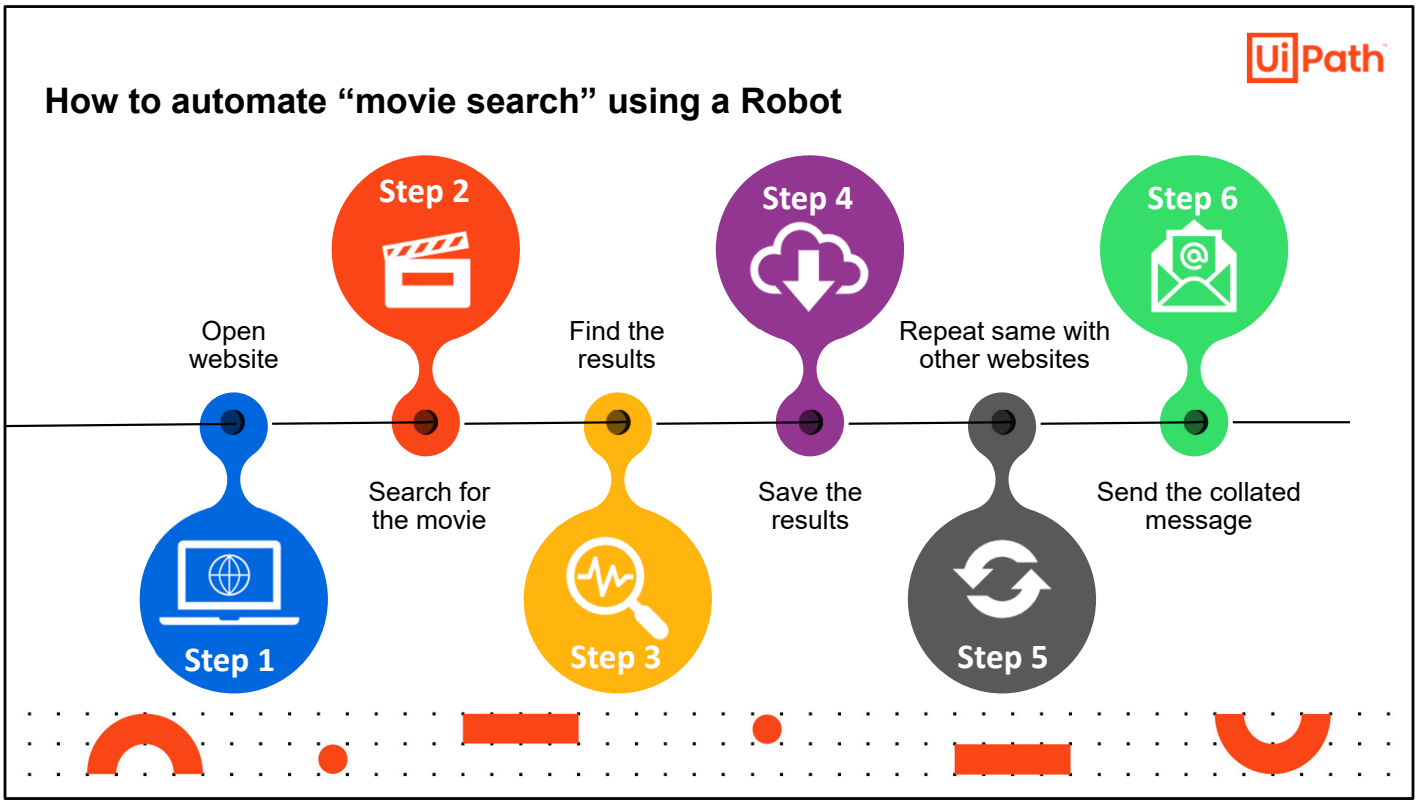
Learning Objectives



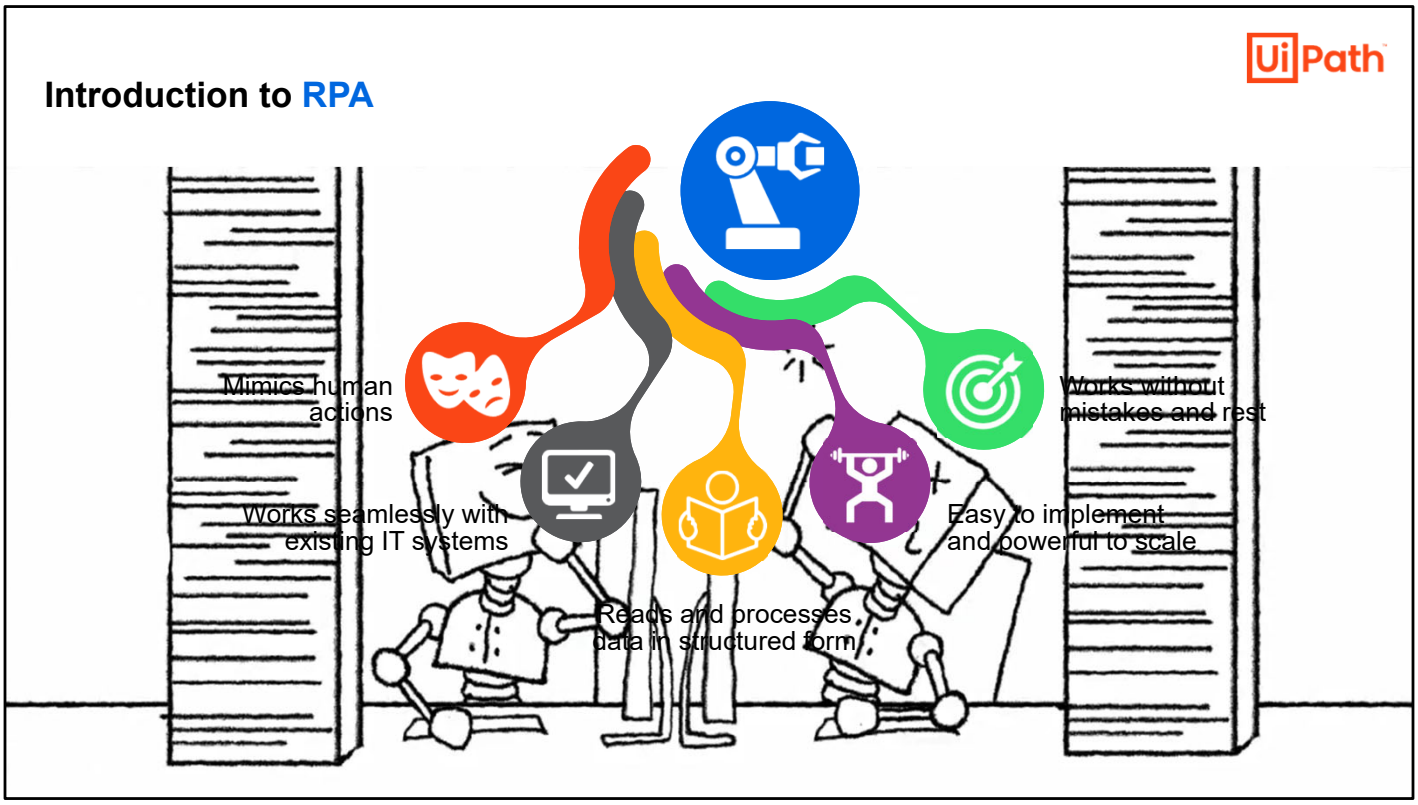


By the end of this section you should be able to:

- Describe Robotic Process Automation
- Describe the impact of RPA on future of work
- List the benefits of RPA
- Understand a Robot and its types



The first step before we start any automation is to capture the process behind it carefully. Lets go back to our example of automating a movie search, The process behind it can be divided into six steps.
In **Step 1** we will open the website,
In **Step 2** we will search for the movie on the website opened in Step 1,
In **Step 3** we will find the results
In **Step 4** we will save the results found in Step 3
In **Step 5** will repeat the steps 1 to 4 again for other websites.
Step 6 is the final step. In this step we will collate all the results, and if the movie is found we will send a message using an email



Robotic Process Automation is disrupting the way IT is being consumed and leveraged around the world. It's solving the supply chain's "last mile connectivity" equivalent in IT. It releases workers from doing the repetitive tasks so that they can focus on more meaningful aspects of their job.

RPA is helping unleash the value of Artificial Intelligence and in the process enabling machines to work according to the business and IT needs. Robotic Process Automation is accomplished with the help of "software robots" which are faster, accurate and more efficient than human operators.

At a basic level RPA creates robots which can mimic human actions on a computer.

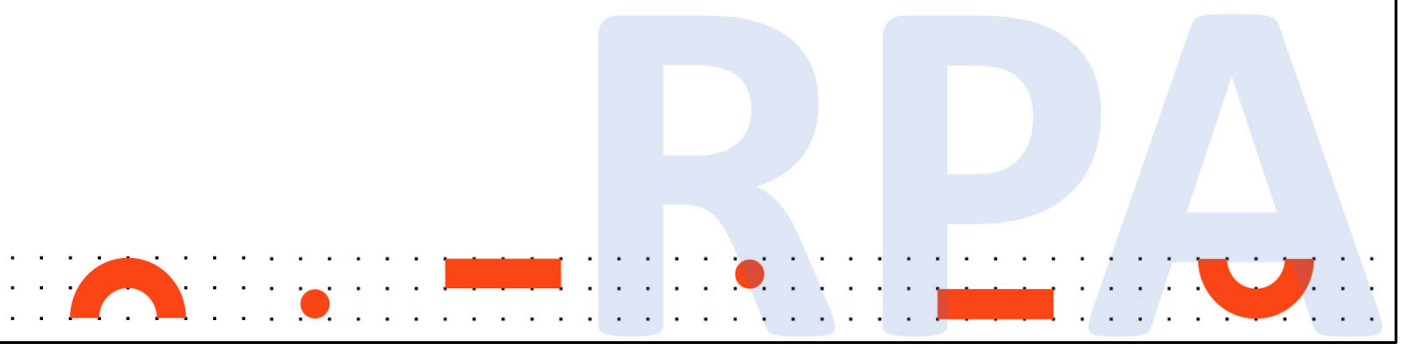
In general, we can say that:

- ❑ RPA can mimic human actions
- ❑ RPA can integrate non-invasively with IT environment
- ❑ RPA can Read and process data in a structured form
- ❑ RPA is easy to implement and powerful to scale
- ❑ RPA robots can perform actions 24X7 without breaks

Robotic Process Automation is....

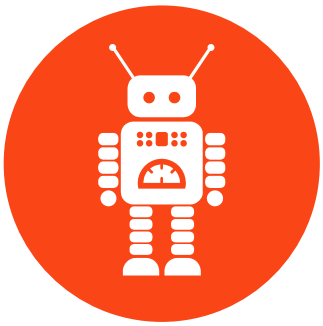
Robotic process automation is about automating human digital interactions

With automation, keyboard inputs, mouse movement and clicks, and reading from the computer screen can be done by robots



Robotic process automation is about automating human digital interactions. Human interactions which can be automated are keyboard inputs, mouse movement and clicks, and reading from the computer screen. With automation these tasks can be done by robots. Can you think of your digital interactions? Can they be automated? Can a robot do it?

RPA is not…



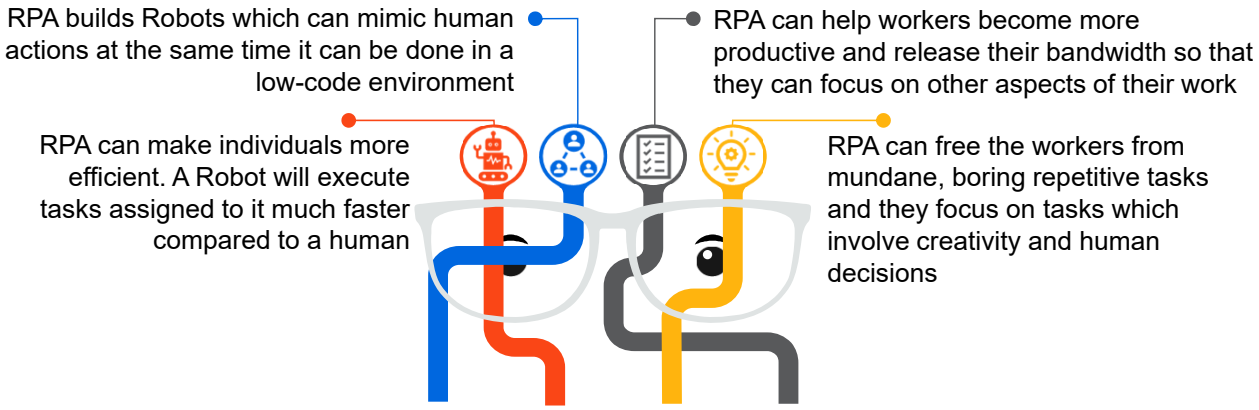
A humanoid robot

Human replacement

Just another cost saving play

Now, let's delve deeper into what RPA is Not, to remove any misconceptions about it. Robotic Process Automation is not about creating humanoid robots or replacing humans. RPA is all about automating the repetitive, time-consuming tasks and processes leading to a better efficiency & utilization of time. It is much more than just another cost-saving method. We will discuss these aspects and other benefits of RPA later in this course

The future of work with RPA

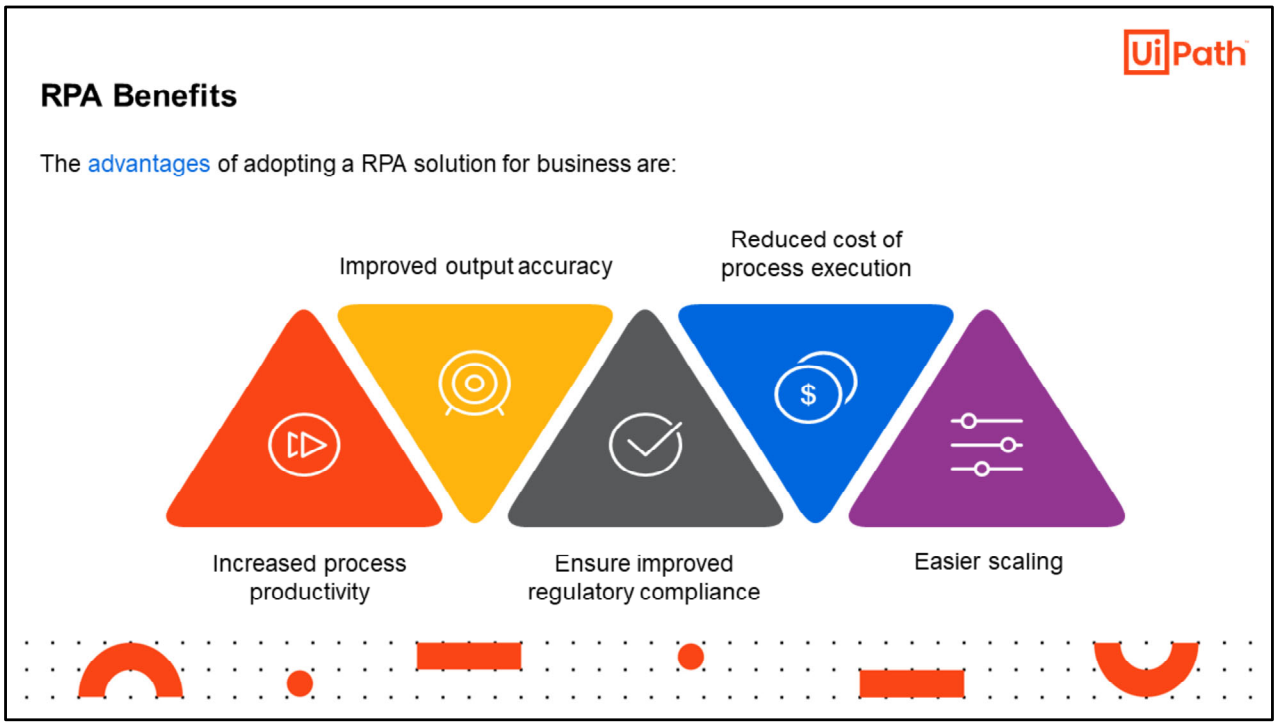


Now, let's discuss what makes RPA the future of work. It can help in Streamline, Automate and Digitalized the business process. RPA leads to higher output by effectively upgrading the affected industries and the associated tasks on a computer. Business industries across the globe are in favor of cognitive, social, technological and highly optimized work. Whereas, digital transformation is more than automation as it brings noticeable benefits for the organization.

This technology has gain advantage which provides digitized and improved version of the human workforce. The tasks that were previously human dependent for their decision-making can now be done by RPA. For, E.g. financial planning and fraud detection. To make RPA more effective, many advanced technologies and software are being integrated making automation more reliable and consistent.

RPA is not just disrupting IT, it is also fundamentally altering nature of work. Advantages of RPA have uniquely positioned it to be increasingly integrated with the way people work, thereby altering it.

1. It builds Robots which can mimic human actions at the same time its can be done in a low-code environment. You don't need programming knowledge to create robots
2. It can make individuals more efficient. A Robot will execute tasks assigned to it much fasted compared to a human
3. RPA can help workers become more productive and release their bandwidth so that they can focus on other aspects of their work
4. RPA can free the workers from mundane, boring repetitive tasks and they focus on tasks which involve creativity and human decisions.



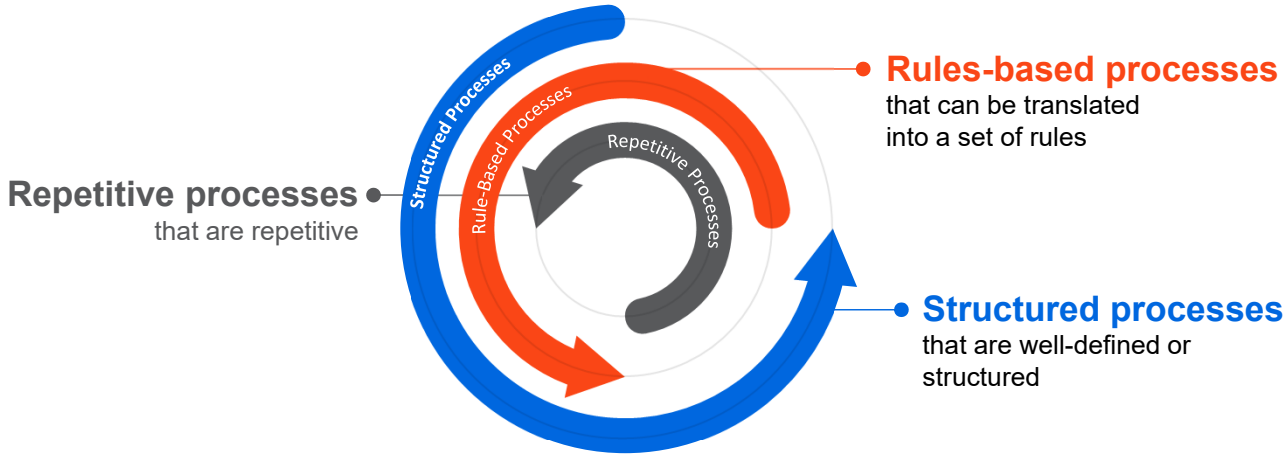
We have already discussed how RPA is changing the Future of Work. Lets look at how Businesses are deriving benefits from RPA. The major advantages of RPA adoption by a business are:

1. Increased execution speed of tasks leading to smoother/faster operations. RPA robots are faster and efficient compare to human operators.
2. Enhanced accuracy as Robots are not prone to human errors. Humans are susceptible to errors and lack precision. RPA deployment ensures that the processes and decisions adhere to pre-defined rules eliminating the chances of errors.
3. Robots adhere to the defined process leading to better compliance and governance. Robots login details are unique and secure, their activities are controlled and supervised leading to more transparent and compliant operations.
4. Reducing the cost of process execution. As the robots are efficient and faster, they lead to optimal utilization of resources.
5. Leads to easier scaling. With the help of Robotic Process Automation solutions, companies can quickly adapt by scaling the solution up or down, depending on

the requirements. Whether one requires an increase or reduction in the virtual workforce, robots can be quickly deployed at zero or minimum costs while maintaining consistency in the quality of work.

Processes best suited for RPA

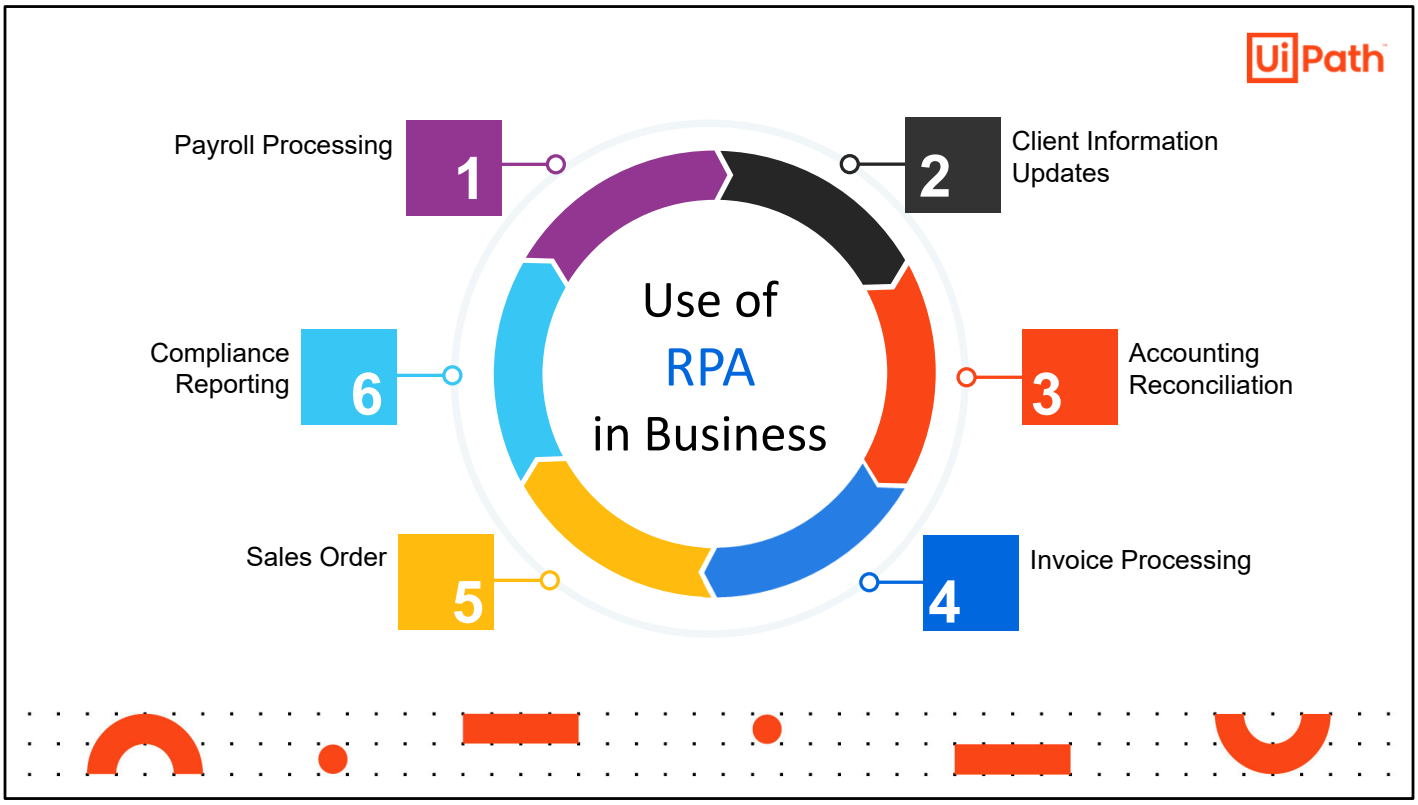
Processes that are simple, structured and can be easily mimicked by a machine are best suited for RPA.



For a process to be a good candidate for automation it needs to have certain characteristics. Processes that are simple, structured, and easily defined that are best suited for RPA. Now lets discuss each aspect in detail.

- **Repetitive**: Processes that are iterative are good candidates. Automation speeds up the execution of those processes resulting in increased productivity.
- **Rules-based**: If the way of handling a specific process does not undergo significant changes with each iteration, it can easily be translated into a set of rules that can be followed by RPA robots. A rules-based process is a good candidate for automation.
- **Structured**: Are the aspects of the process well-defined or structured? If yes, the process's automation is easy to perform.

The consistency and accuracy of robots are greater than what a human worker can accomplish. That means they are less prone to error. Robots can be built to report all relevant data around their processes immediately, making it easier to keep track of their activity.



Using RPA and its tools, an organization can easily configure a robot to analyze and interpret applications for processing. RPA helps in communicating with other IT systems. RPA enabled businesses have an edge in terms of speed of operations leading to better services for end-customers.

Let's talk about some of the most popular processes where RPA is deployed in businesses today:

1. Payroll Processing: RPA authenticates the consistency of employee data across the organization. It validates the time records, bonuses, and deductions for new and existing employees. It can also automate paycheck calculations, employer benefits, and compensations.

2. Client Information Updates: With the rule-based and repetitive nature of client information updates activities, RPA can automatically generate a pre-structured workflow once the updates are available. Robots can also be configured to send out notification emails to new clients and the organization.

3. Accounting Reconciliation: Robots can easily extract data from various documentation sources such as bank statements or invoices. Software robots can also resolve purchase orders complexities which ensure orders compatibility and deliveries.

4. Invoice Processing: RPA can be used to process invoices. Be it on a paper or available electronically, the robots can automate the data inputs and even based on particular decision-making abilities it minimizes the need for human presence. The automated robots never lose track and make calculations to reduce errors. The overall process typically can be performed within a few minutes while the same task may require hours of human engagement.

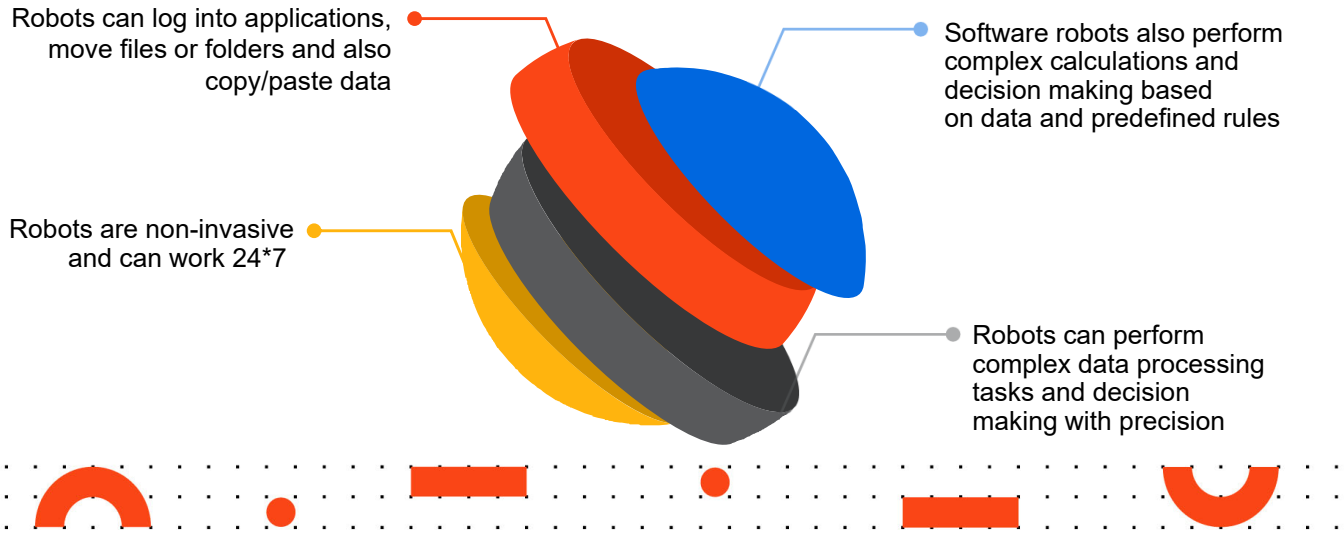
5. Sales Order: Automated robots can perform operational sales activities, such as sales order entry, invoicing, etc. It can help in maintaining a sales database, thus improving the customer experience.

6. Compliance Reporting: RPA application helps in risk management and compliance reporting. It

has the potential to help and support compliance components in a flexible manner. These robots help in cost and time management.

What are Robots?

A robot is a software that can execute workflows containing multiple steps.



A robot is a software which can be programmed to execute steps done in computers and follow workflows. A robot can perform multiple steps in multiple applications.

Software robots also perform complex calculations and decision making based on data and predefined rules. They can mimic human actions such as type, click and read data.

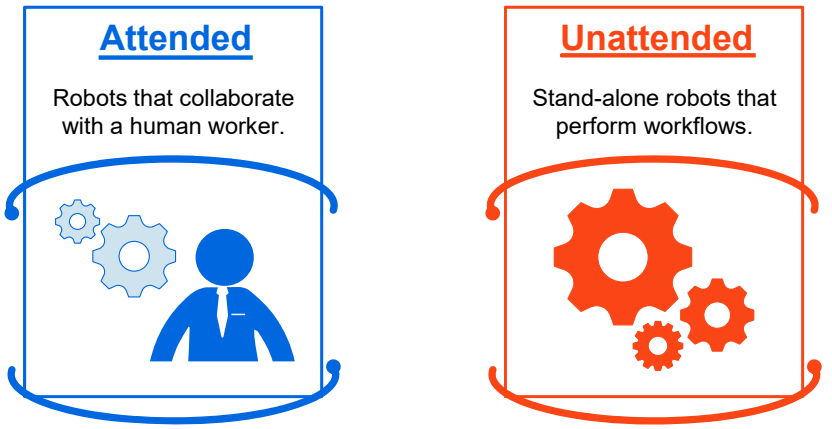
RPA robot interacts with applications. This interaction is non-invasive. They can log into applications, move files or folders and also copy/paste data

Once trained and programmed, robots can perform complex data processing tasks and decision making with precision.

The software robots are designed to improve the process efficiency and save time. They are non-invasive and can work 24*7.

Types of Robots

In RPA, robots are categorized on the basis of manual intervention required.



In RPA, robots are of two types, Attended and Unattended Robot. The classification of robots depends on whether they require manual intervention or not.

Attended robots work with human workers on business activities to speed up the repetitive front-office tasks. Attended robots reside on the workstation of the human worker and are perfect collaborators in service desk, helpdesk, and call center activities.

These robots work in the background and ensure high productivity and low handling times, while the human workers can continue to carry out their tasks unhindered. Attended robots need manual intervention, and hence, they are not fully automated. Manual intervention means when human intelligence is required for further execution or completing the task.

Unattended robots can operate without human intervention on any variety of back-office activities. Unattended robots can run in both physical and virtual environments. These robots can also be scheduled to start and stop at any time as per the business requirements. The unattended robots are maintained and guided remotely by the server. These robots are designed to work end to end without any interventions. They are independent,

Check your knowledge

Now it’s your turn to test what you have learned so far. I will challenge you with 5 questions. You need to answer at least 4 to successfully complete the quiz. Each question will have multiple answers. Its possible that more than one answer may be correct. All the best

What is the full-form of RPA ?

a) Robotic Progress Automation

b) Robotic Process Automation

c) Robots Process Automation

d) Robotic Planning Automation

The correct answer to this question is option **b**

What are the benefits of RPA?

a) Increased execution speed

b) Easier scaling

c) Improved compliance and governance

d) Reduced cost of process automation

e) All of the above

The correct answer to this question is option **e**

How many types of Robots are there in UiPath Studio?

a) Two types

b) Three types

c) Four types

d) Five types

The correct answer to this question is option **A**

Which of the following is a good candidate for RPA?

a) Invoice Processing

b) Sales Order

c) Payroll Processing

d) Database Updating

e) All of the above

The correct answer to this question is option **E**

Which processes are best suited for RPA?

a) Repetitive

b) Rule-based

c) Structured

d) All of the above

The correct answer to this question is option **D**

So far, we have discussed

- Introduction to RPA
- The impact of RPA on future of work
- Processes best suited for RPA
- Different types of Robots

This concludes section one of this course. Let's summarise what we have learnt so far. We had started this lesson with an introduction to RPA. Later we discussed the impact of RPA on future of work. Then we learnt how to identify the processes best suited for RPA. And towards the end we learnt about different types of Robots. In the next section of the course we will discuss and learn installation of UiPath and extensions required for the course.