RPA (UiPath)

1st Course – 09/10/2023

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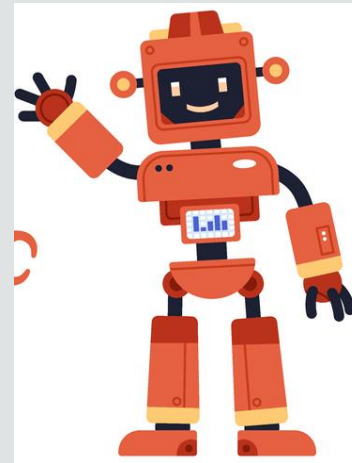
RPA Kickoff

**To join, go to:
ahaslides.com/ANHDQ**

Retro Vector Set
HIPSTER ROBOTS

Ui Path™
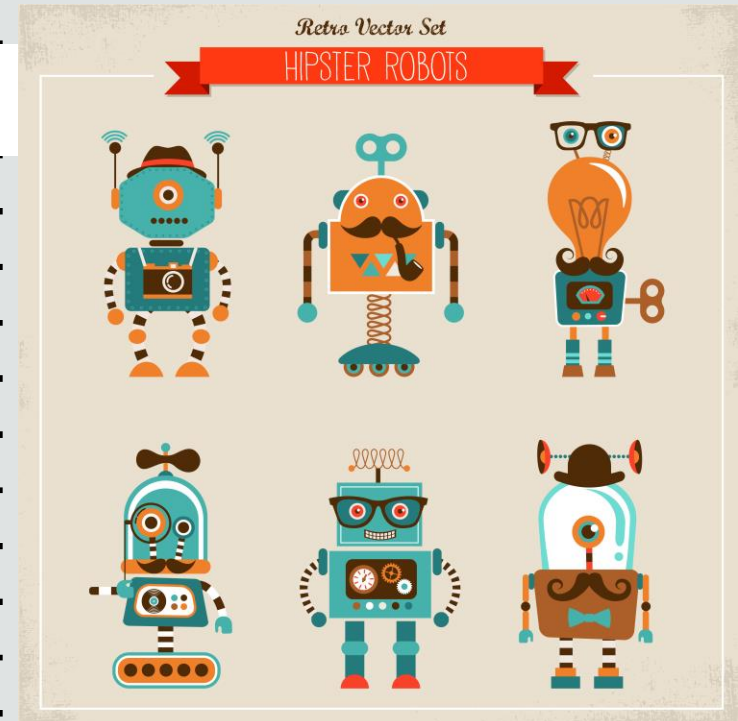
Types of robots

- **Attended bots**
  - run under human supervision and, because of this, are best suited for use with smaller, more fragmented tasks;
  - human input is required at some point in the process

- **Unattended bot**
  - are intended for more complex and highly repetitive tasks, usually needing to be performed in batches, that can be decided based upon a predefined rule;
  - additionally, unattended automations are suited to processes that perform privileged operations, requiring elevated permissions and credentials;
  - do not require human interaction.
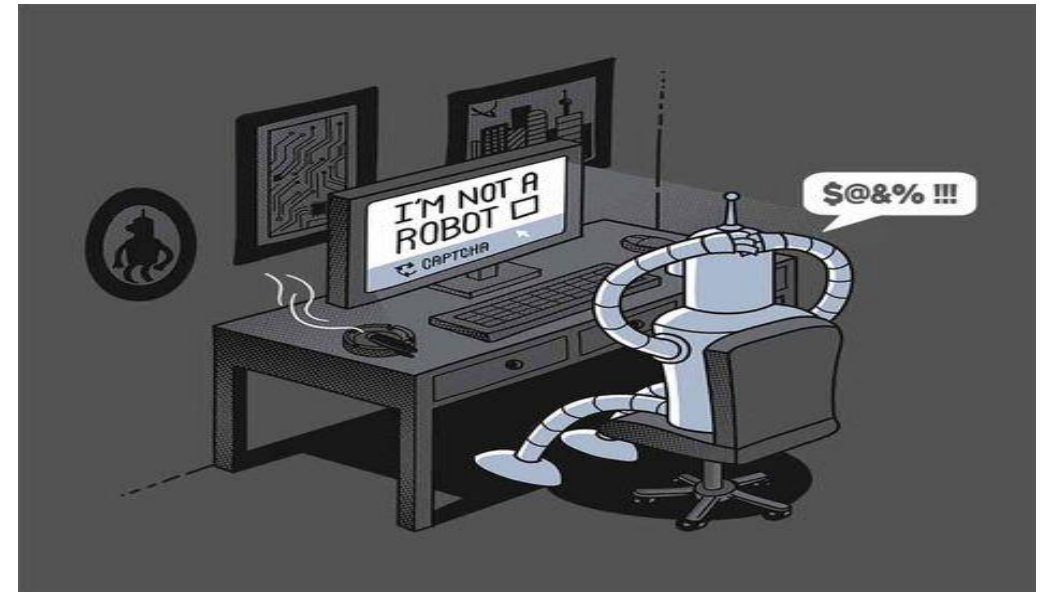
What RPA can automate?

Rule based processes

What RPA can automate?

Rule based processes

Repetitive processes

What RPA can automate?

Rule based processes

Repetitive processes

Standardized input data

What RPA can automate?

Rule based processes
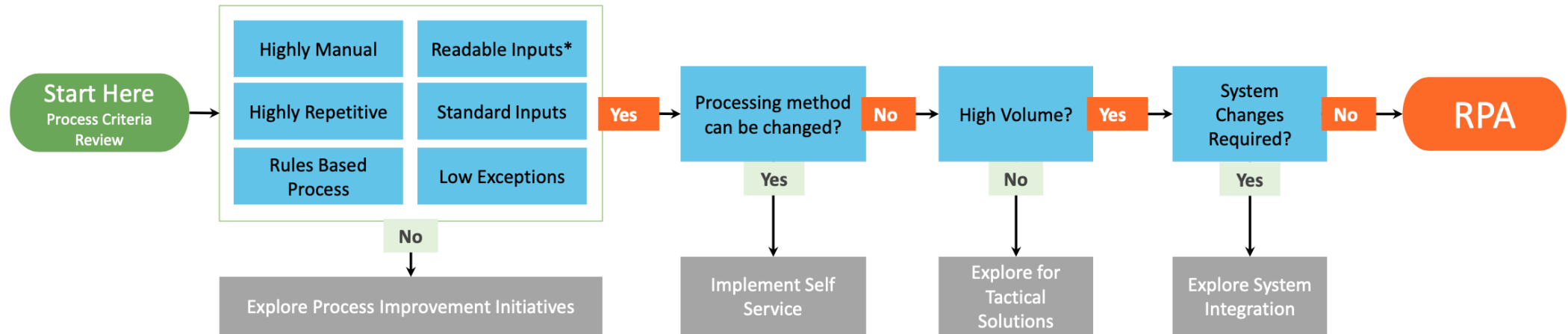
High volume processes

Repetitive processes

Standardized input data

What RPA can automate?

Rule based processes

High volume processes

Repetitive processes

Stable processes

Standardized input data

1 **Identify** a process that **qualifies to** the below **criteria / characteristics:**

```
Start Here          ┌─ Highly Manual      Readable Inputs* ─┐
Process Criteria     │  Highly Repetitive   Standard Inputs  │ → Yes → Processing method → No → High Volume? → Yes → System → No → RPA
Review               └─ Rules Based         Low Exceptions ──┘      can be changed?            Changes
                        Process                                                                Required?
```

- Start Here / Process Criteria Review
- Highly Manual
- Readable Inputs*
- Highly Repetitive
- Standard Inputs
- Rules Based Process
- Low Exceptions

No → Explore Process Improvement Initiatives

Processing method can be changed? → **Yes** → Implement Self Service

High Volume? → **No** → Explore for Tactical Solutions

System Changes Required? → **Yes** → Explore System Integration

RPA

2 **Evaluating alternative solutions:**
a) *e.g. organizational, sequential improvement*
b) *e.g. configurable change of options*
c) *e.g. can tasks be assigned differently*
d) *e.g. enhancing system functionality*

3 **Robotic Process Automation solution**

readable input type = excel, word, email, XML, PDFs etc.
Non-readable input type: scanned image with no OCR

Automation Complexity

NO RPA	SEMI-AUTOMATION	HIGH-COST RPA	ZERO-TOUCH AUTOMATION

Processes where change is frequent, the system environment is volatile, and multiple manual (even non-digital) actions are required

Automation Complexity

NO RPA	SEMI-AUTOMATION	HIGH-COST RPA	ZERO-TOUCH AUTOMATION
	Processes that can be broken down into steps that can be clearly automated, and steps that need to stay manual (such as validations or usage of physical security tokens)		

Automation Complexity

NO RPA	SEMI-AUTOMATION	HIGH-COST RPA	ZERO-TOUCH AUTOMATION

Processes that are rather digital and can be automated, but use some technologies that are complex (such as OCR) or require advanced programming skills

Automation Complexity

NO RPA	SEMI-AUTOMATION	HIGH-COST RPA	ZERO-TOUCH AUTOMATION

Processes that are digital and involve a highly static system and process environment, so that they can be easily broken into instructions and simple triggers can be defined

Consider the following 3 processes. What would be your first, second and third choice for automation from the point of view of effectiveness and efficiency (low effort and costs, high benefits)?

Second choice	Translating customer emails from different languages to English
Third choice	Password reset process triggered by email and using a dedicated web application
First choice	Reading and preparing for payment handwritten invoices

Consider the following 3 processes. What would be your first, second and third choice for automation from the point of view of effectiveness and efficiency (low effort and costs, high benefits)?

✓	First choice	Translating customer emails from different languages to English
✓	Second choice	Password reset process triggered by email and using a dedicated web application
✓	Third choice	Reading and preparing for payment handwritten invoices

RPA Team

RPA Developer

Solution Architect

Business Analyst

Implementation Manager

Infrastructure Engineer

RPA Support

Process optimization

Organizations are faced every day with the challenge to **produce more spending less. A suboptimal process will never deliver the most efficient result possible.**

1. Identify

Think about a process in a company that is costing them more than it should or inducing client's dissatisfaction or even stress between employees.

- What is the final purpose of the process? What should the outcome be?
- Where does the process start and ends?
- What activities are part of the process, passing through the stages?
- Which departments and people are involved?
- Which information travels between steps?

At this point, we are asking what is the process, and not how to do it.

Process optimization

2. Rethink

It is the time to map the process, worrying about how to execute each step, about how the process flows, about what is process optimization to this process.

- Is there a better way to perform this process?
- How exactly is this process conducted?
- How much paper (for example) does this process use?
- How long does the process take to be finished?
- How much time is lost in rework and mistake correction?
- Where does the process stall?

Having a micro and macro vision is important. Each detail is important, since the way an email is written until the perception of what the client wants.

Compare the answers to this questions to the ones in the first item, and maybe you will find out that tasks that seemed crucial are expendable.

Process optimization

3. Automate
Automate the processes that are proved to work and spread them through the company to see the results in costs reduction, mistake prevention, wastage cut and production increase.

4. Monitor
Through the entire process optimization, monitor, monitor, and monitor. After the automation, you will sure find new improvement points and bottlenecks. Identify them, rethink the process, implement it and automate it.

As all the processes in business process management, this is a cyclical project.

How the customer explained it

How the project manager understood it

How the designer sketched it

How the programmer wrote it

What the Beta-Tester got
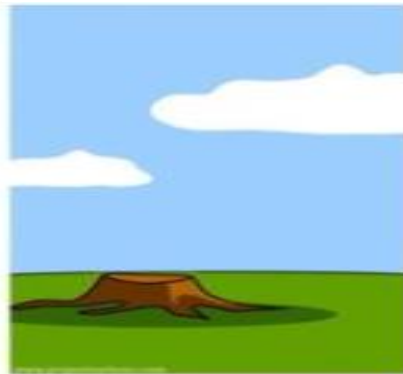
How the consultant described it

How the project was documented

What was installed at the customer

What the client was charged for

How it got maintained

How Marketing is advertising it

What the customer really needed

RPA course evaluation

- Based on a **project** (as a team (3-5 students))
- The project aka **The Robot** built by you will be evaluated in the last week of school.
- **Checkpoint**: **20th November (mandatory)**– the students will send the robot proposal (in Teams or via Email) and check with the teacher if the idea meets the requirements.
- **Checkpoint**: **8th January (optional)**– the students will submit a first version of the robot (in Teams or via Email) in order to receive feedback from the teacher (feedback that is expected to be implemented until Evaluation Day)
- **Evaluation Day**: every team will have a 15 minutes time slot to present the problem that the robot is solving, to show the robot in action and to answer the possible questions from the teacher and/or colleagues.
- **Project requirements**: the grading scale can be found in Teams, Files section.