**RPA stands for Robotic Process Automation – a technology that uses software robots (bots) to automate repetitive, rule-based tasks normally done by humans. These tasks could include:**

Entering data from Excel into systems

Processing invoices

Auto-responding to emails

Generating regular reports

Logging into websites and filling out forms

The goal is to save time, reduce human error, and increase productivity.

## Popular RPA Tools:

1. UiPath

One of the most popular and user-friendly tools

Drag-and-drop interface with minimal coding

Great for working with Excel, emails, websites, and legacy systems

2. Automation Anywhere

Enterprise-level RPA tool

Offers AI capabilities and analytics

Supports both cloud and on-premise automation

3. Blue Prism

Preferred by organizations needing high control and security

Uses drag-and-drop visual programming

Slightly more technical than UiPath

4. Power Automate (by Microsoft)

Integrated with Office 365

Great for automating workflows within Microsoft environments

Ideal for simple to moderate automation needs

5. Kofax RPA

Strong in document and image data extraction

Ideal for invoice processing and scanned document automation

## RPA general use cases and how it connects with AI (Artificial Intelligence).

1. RPA Use Cases

Back Office Operations:

Data entry

Data migration

Report generation

Invoice and order processing

Human Resources:

Sending job offers automatically

Leave request processing

Employee onboarding automation

Banking & Finance:

Verifying banking data

Opening new accounts

Monitoring suspicious transactions (in combination with AI)

Healthcare:

Managing patient records

Insurance verification

Appointment booking or sending lab results

Customer Service:

Auto-reply to FAQ

Updating customer information

Routing requests to the right departments

2. RPA with AI

RPA by itself follows strict rule-based logic. But when combined with AI, we get Intelligent Automation (IA), which enables:

Text and image recognition (OCR + AI):

Scanned invoices read by AI, data entered by RPA

Understanding emails (Natural Language Processing - NLP):

AI classifies emails (complaint, inquiry, request), RPA acts accordingly

Smart chatbots:

RPA executes tasks based on user intent interpreted by AI

Learning and optimization:

AI analyzes workflows and suggests automation opportunities

Example:

A bank employee receives 100 emails daily from customers.

AI reads and categorizes them

RPA logs into relevant systems to handle each request

RPA replies to the customer automatically