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TEST 2 – SMJE 4293 INDUSTRIAL AUTOMATION

Q1.a) Robotic Process Automation (RPA) is the use of technical applications to set or reproduce the activities that occur when a human interacts with a computer's UI interface. Because everything is automated, robotic process automation software simplifies a variety of IT chores. Robotic process automation is also critical for industrial and manufacturing organizations' productive operations since it increases production rate, saves time, and improves product quality.

The following are some of the characteristics of robotic process automation:

1) No programming code required:

RPA does not need any programming skills. Employees simply need to be taught how RPA works, which is often a simple process. This offers it an advantage over typical automation approaches.

2) Not disruptive:

Unlike conventional automation approaches, which typically include complicated transformation procedures, RPA transformation processes are simple and easy.

3) User friendly:

Robotic process automation software is often simple to learn and utilize. Users do not require any specific understanding in order to utilize RPA.

Q1.b) The steps to implement Robotic Process Automation:

1. List out Processes to Automate

RPA isn't appropriate for many business operations. Businesses should devise a strategy for selecting the best processes and then prioritizing them based on factors such as complexity and return on investment.

2. Perform Feasibility Assessment

Perform a feasibility analysis for each process to see how much of it can be automated.

3. Readjust

Determine whether procedures are not organized, standardized, optimized, documented, or implemented as anticipated based on the feasibility assessment study. Attempt to reoptimize and reorganize the process at this point.

4. Gather User Stories

A user narrative defines the aspects of an application that will be constructed from the perspective of the end user. It goes through all of the user needs in great depth.

5. Start Development Process

The development process begins at this step, depending on the RPA workflows that have been developed. Using RPA technologies such as UiPath, Blue Prism, and others, the developers generate automated scripts and program code. Because each RPA tool has its own set of capabilities, firms need be very particular when selecting the right solution for their purposes.

6. Test RPA Process

Conduct extensive testing to examine performance in all conceivable circumstances and to identify faults when the procedure is run.

7. Reconfirm and Deploy

Once the development teams have rectified the first tests and problems, double-check the results and deploy the entire RPA solution.