

Project Report

Study of Robotic Process Automation Tools and prototyping a business flow

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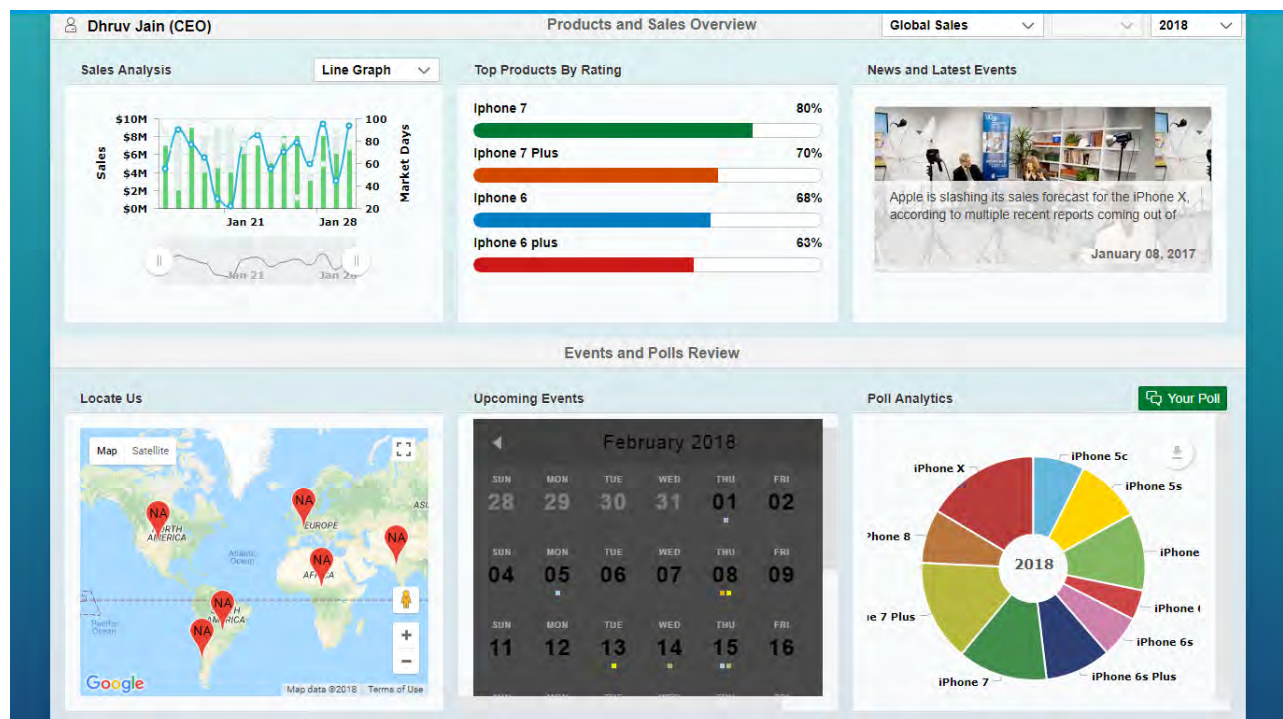


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Executive Summary

Software development is done either using concepts of design and development of software to develop a custom application or using Application Programming Interface (API) that can leverage underlying binaries. Both these development approaches have pros and cons.

Robotic Process Automation (RPA) offers a different path in that it requires no programming other than RPA platform thereby allowing backward compatibility with existing software and allows mundane tasks to be automated. The building block is availability of Application Programming Interface (API) software. RPA can also leverage underlying machine learning and artificial intelligence infrastructure if the appropriate APIs are exposed. Main players in this space are UiPath, Blue Prism and Automation Anywhere.

The key business value of RPA is productivity, efficient and customer satisfaction. Software robots can be available all the time and enhance user experience. SAP stands for Systems, Application and Processes in Data processing and is a pre-eminent company in managing businesses software and process automation.

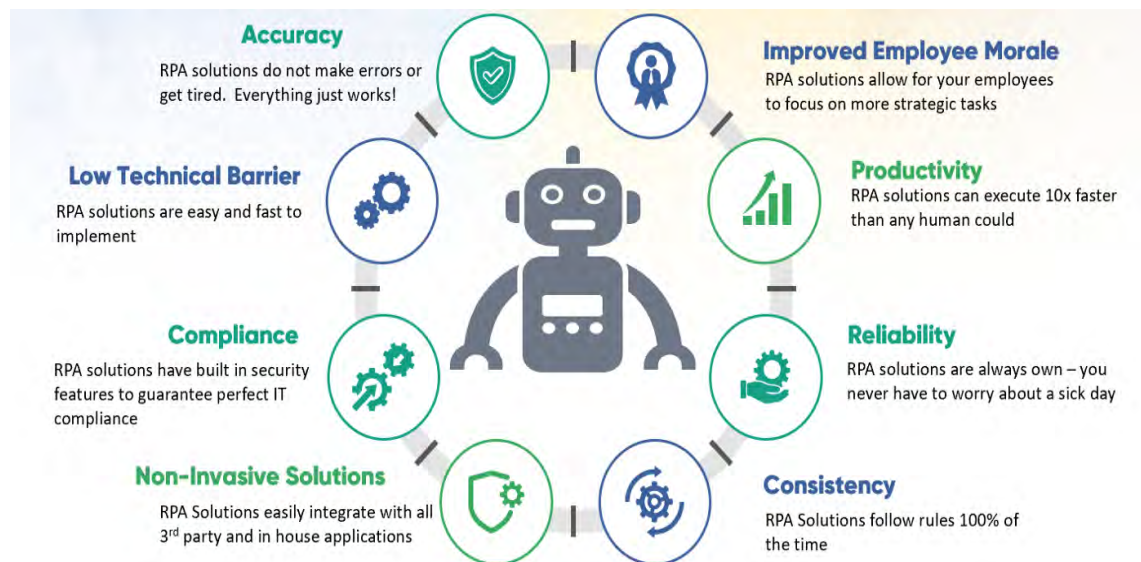


Figure 1: Robotic Process Automation benefits (Source:<https://bit.ly/2TfRMte>)

In this study we evaluated SAP's intelligent Remote Process Automation (iRPA) ecosystem and SAP UI5 based Fiori. Benefits of SAP iRPA were included visual user interface design, repository for bot skills and analytics and prebuilt bots for accelerated processes. Some of the benefits of RPA are depicted in Figure 1.

Tasks accomplished

Weekly Project Report for week ending 6/6/2021

- Visited sap.com and created a profile and activated SAPS/4/HANA free trial
- SAP Business Application Studio explored online
- Read about RPA and SAP automation

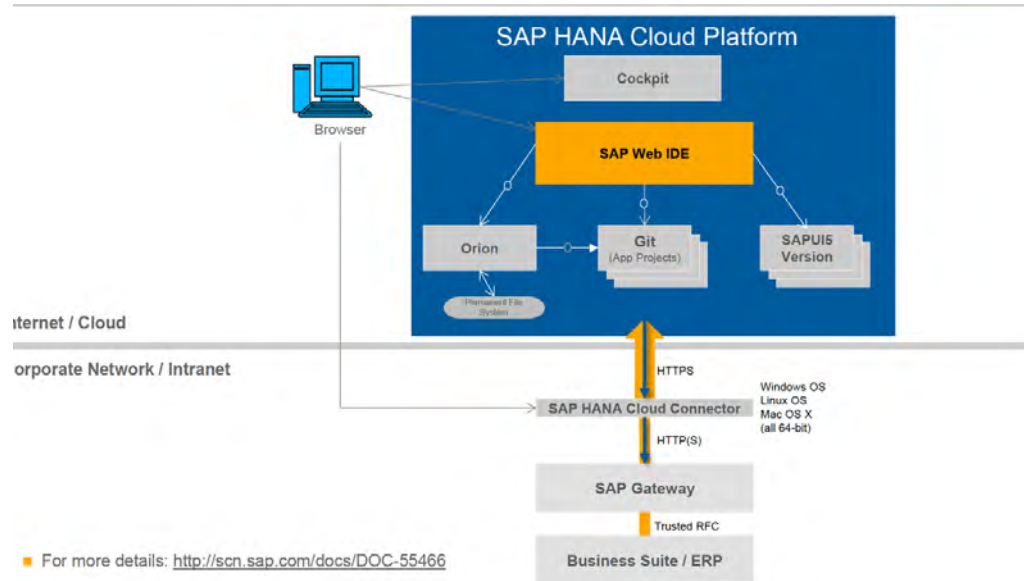


Figure 2 SAP Architecture (Source: SAP website)

Project Report for Week ending 13/6/21

- Created the first SAP UI5 application using Fiori
- Tested with Northwind ODATA backend
- Read the development paradigms, will re-review it again this week as it is all new to me
- Working on standalone application on local host

Choice of simulator

- Desktop (large)
- Other screen sizes, such as iPad (medium), iPhone (small), Android, custom size
- The application is responsive – will adapt its appearance to the screen size
- Multiple screen sizes are predefined

Language

- If the application supports multiple languages (i18n properties), then the language text can be changed on the fly

QR Code generation

- A QR code is generated for the URL by clicking the rectangle

Orientation

- The orientation of the screen can be toggled between landscape and portrait view

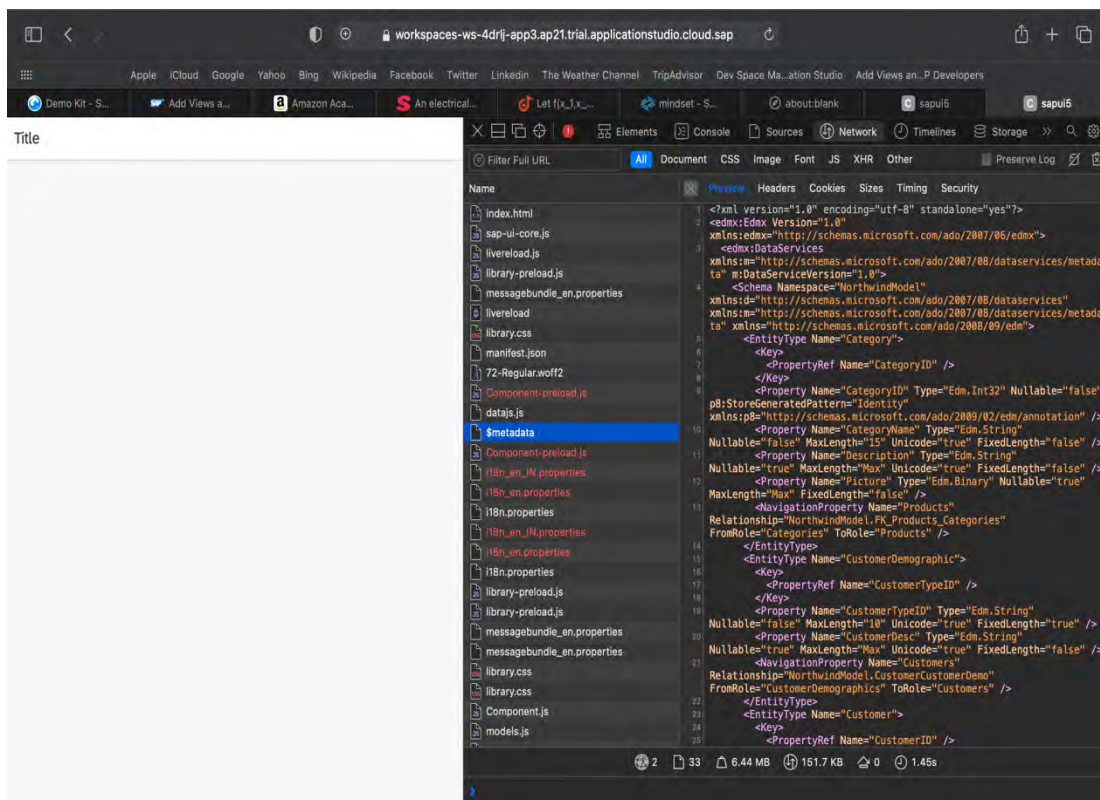
Refresh

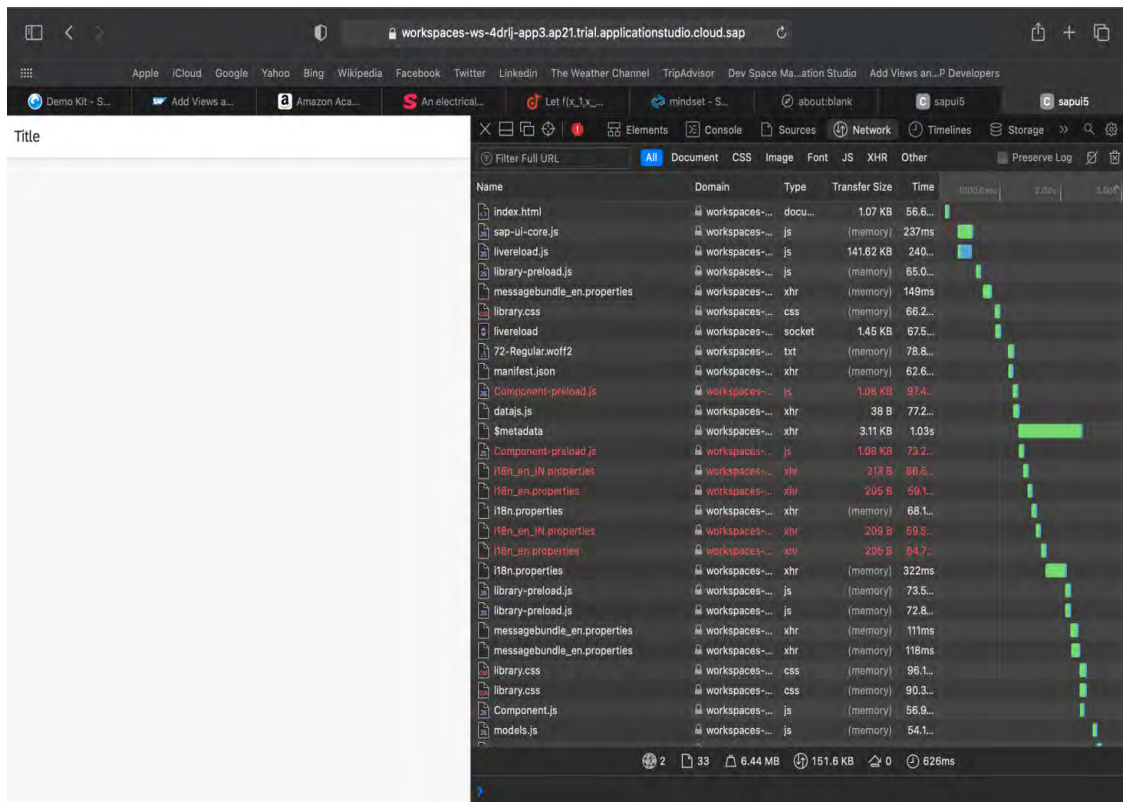
- The application can be reloaded without needing to rerun it from the development environment

Figure 3 SAP Web IDE (Source: Open SAP training)

Project Report for week ending 20/6/21

- Understood the paradigms and reviewed all controls
- Read the enclosed articles about IRPA and





ListTitle
Chai
Chang
Aniseed Syrup
Chef Anton's Cajun Seasoning
Chef Anton's Gumbo Mix
Grandma's Boysenberry Spread
Uncle Bob's Organic Dried Pears
Northwoods Cranberry Sauce
Mishi Kobe Niku
Ikura
Queso Cabrales
Queso Manchego La Pastora
Konbu
Tofu
Genen Shouyu

Product Overview		
Search		
Chai	10 boxes x 20 bags	18.00 EUR Available
Chang	24 - 12 oz bottles	19.00 EUR Available
Aniseed Syrup	12 - 550 ml bottles	10.00 EUR Available
Chef Anton's Cajun Seasoning	48 - 6 oz jars	22.00 EUR Available
Chef Anton's Gumbo Mix	36 boxes	21.35 EUR Discontinued
Grandma's Boysenberry Spread	12 - 8 oz jars	25.00 EUR Available

Project Report for weeks 27/6/21- 18/7/21

- Reviewed Blue Prism Software documentation and understood concepts of Business object and process flows as as their interaction
- Set up Blue Prism on Microsoft Azure cloud and setup use case from RPA course Online to test Business objects and process object processing
- Simple business process automation opening a set of files in a directory and reading the selected text using Blue Prism process and Business Object Studio attempted
- Screen capture of the process flow chart enclosed

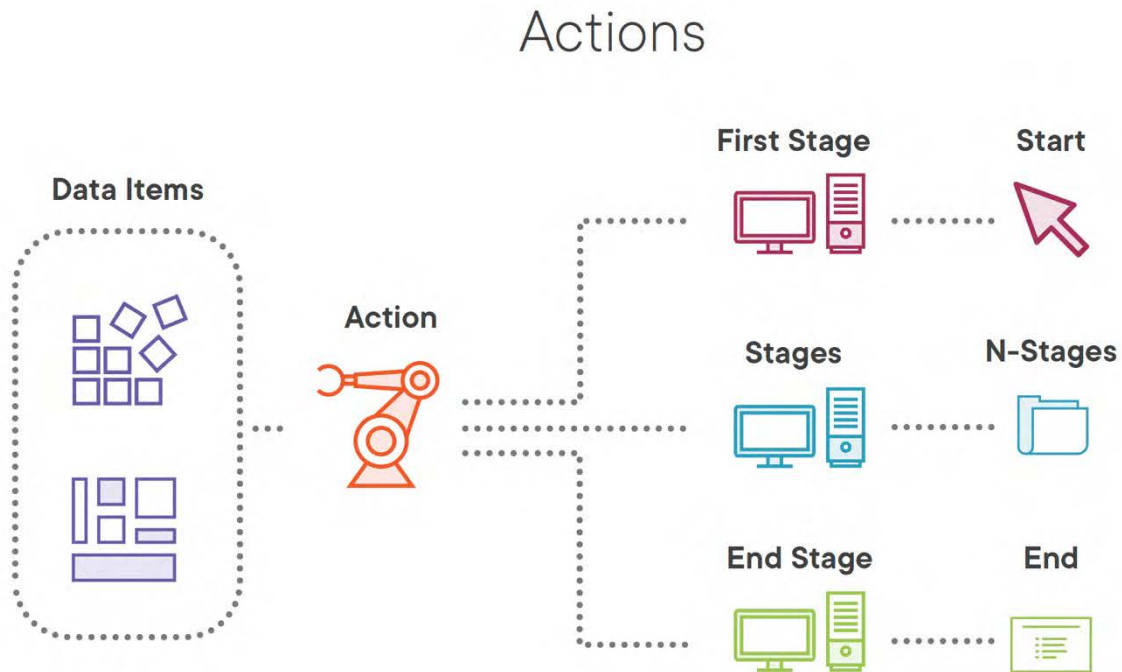


Figure 4: Components of Robotic Process Automation using Blue Prism (Source: Online course on RPA using Blue Prism)



Figure 5: Interaction between Robotic Process Automation components in Blue Prism (Source: Online course on RPA using Blue Prism)