Assessment of Two Enterprise Architecture Softwares for Presentation for University Students

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Abstract: Enterprise architects work with stakeholders, both leadership and subject matter experts, to build a holistic view of the organization's strategy, processes, information, and information technology assets. The role of the enterprise architect is to take this knowledge and ensure that the business and IT are in alignment.(Ndlela & Du Toit, 2001) The enterprise architect links the business mission, strategy, and processes of an organization to its IT strategy, and documents this using multiple architectural models or views that show how the current and future needs of an organization will be met in an efficient, sustainable, agile, and adaptable manner (Le Clair & Miers, 2016). Very important part of any Enterprise Architecture Softwares is the part that takes care of the business process. is In this paper we will take as a case study two important Software suits ;Adeptia Suite and Bpm ' online Studio . The aim of the comparison is to evaluate both softwares and recommend one of them to be used in the lab of the Enterprise Architecture Course in Department of Information Systems at King Abdulaziz University.

INTRODUCTION

An enterprise resource planning (ERP) system is a packaged business software system that enables a company to manage the efficient and effective use of resources (materials, human resources, finance, etc.) by providing a total, integrated solution for the organization's information-processing needs. It supports a process-oriented view of the business as well as business processes standardized across the enterprise. Among the most important attributes of ERP are its abilities to:

- automate and integrate an organization's business processes;
- share common data and practices across the entire enterprise; and
- produce and access information in a real-time environment(Fui-Hoon Nah, Lee-Shang Lau, & Kuang, 2001).

It is a system that serves companies in the manufacturing, distribution, and service fields One important and Critical factor for successful implementation of enterprise systems is Business process reengineering (BPR) and minimum customization Another important factor that begins at the project phase is BPR and minimum customization. It is inevitable that business processes are molded to fit the new system (Ross, 1999).Aligning the business process to the software implementation is critical (Holland et al., 1999; Sumner, 1999),(Al-Mashari, Al-Mudimigh, & Zairi, 2003) Organizations should be willing to change the business to fit the software with minimal customization (Holland et al., 1999; Roberts and Barrar, 1992). Software should not be modified, as far as possible(Loh & Koh*, 2004). Modifications should be avoided to reduce errors and to take advantage of newer versions and releases (Rosario, 2000). Process modeling tools help aid customizing business processes without changing software code (Holland et al., 1999). Broad reengineering should begin before choosing a system. In conjunction with configuration, a large amount of reengineering should take place iteratively to take advantage of improvements from the new system. Then when the system is in use reengineering should be carried out with new ideas (Wee, 2000).

Quality of business process review and redesign is important (Rosario, 2000). In choosing the package, vendor support and the number of previous implementers should be taken into account (Fui-Hoon Nah et al., 2001). This paper reviews and compares two important bpm Softwares ; Adeptia amd bmp online .

The rest of the paper is Organized as follows; Section II we will take the case study analysis a comparison of the two software suits. Section III will summarize and conclude the findings.

CASE STUDY ANALYSIS

Adeptia Suite

Is a web-based enterprise software product to manage, automate, and optimize business processes. It allows you to document and manage processes to make them consistent, repetitive, and visible. Adeptia Suite enables integration of disparate systems to manage enterprise-wide crucial information and automate information exchange. Its reporting capabilities provide transparent view of performance of business processes and resources, thus enabling their optimization.

Adeptia BPM

Adeptia BPM solution is a high-value application that offers the functionality needed for a complete Business Process Lifecycle – MODEL, AUTOMATE, and MONITOR. Adeptia BPM (Business Process Management) is a complete solution that helps companies fully automate their business processes. Adeptia BPM is a flexible software product that is an ideal platform to create many types of process solutions and address

different types of business needs

Adeptia Integration Suite provides rich workflow capability that allows companies to take their manual business processes and convert them into functional workflows that can be tracked, monitored and automated based on specific business rules. Adeptia leverages its expertise in Business Process Management (BPM) technology to help companies take a process-centric approach to IT to solve critical business problems quickly and easily.

In this parwe we would use three business use cases to highlight how Adeptia supports the design and automation of business workflows. Adeptia supports full integration capability to sync-up data between workflows and applications.

Example : Employee On-boarding

A typical employee onboarding process has multiple steps starting from the event that kicks off the process such as changing the status of a candidate to "hire", provisioning the new employee by setting up their network ID, creating a company facility access badge, opening up email and application access, provisioning a company credit card for expenses, and notifying IT Help Desk to configure a laptop and phone. Rules around employee provisioning may vary depending upon whether the candidate is a full time or a part-time employee or a contractor. Here's an example of a workflow process in Visio.
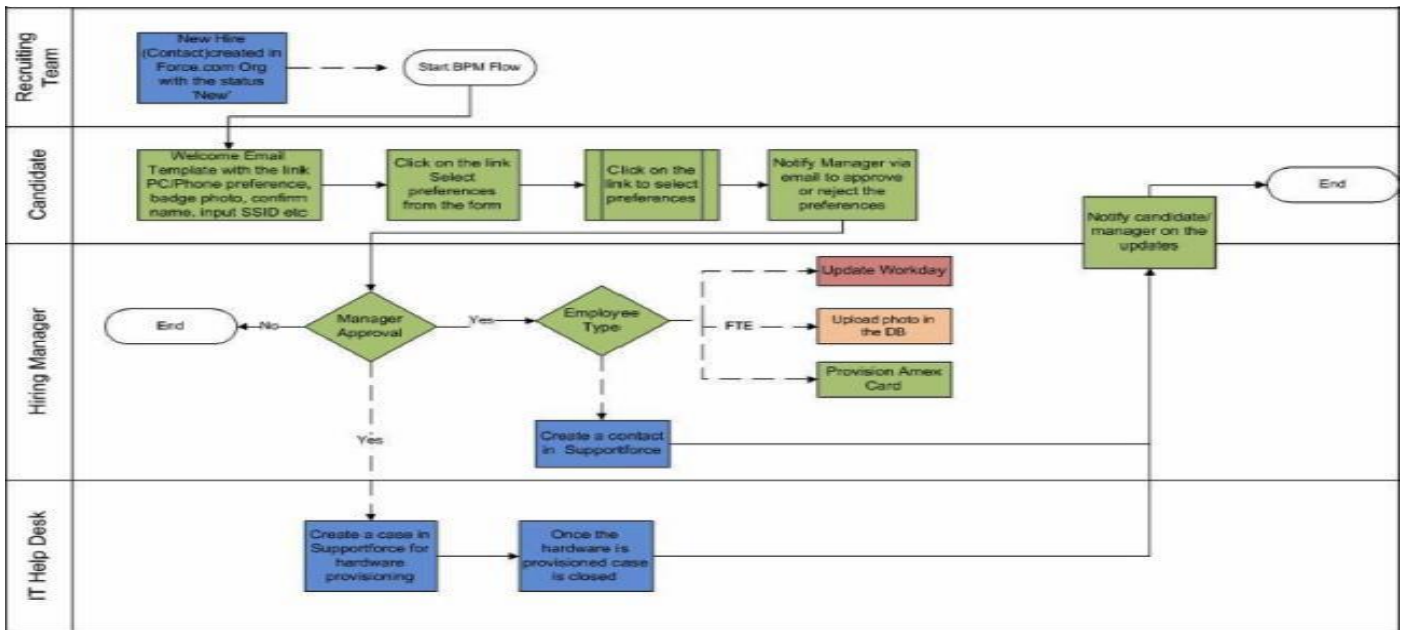

Figure1. Employee On-boarding Workflow

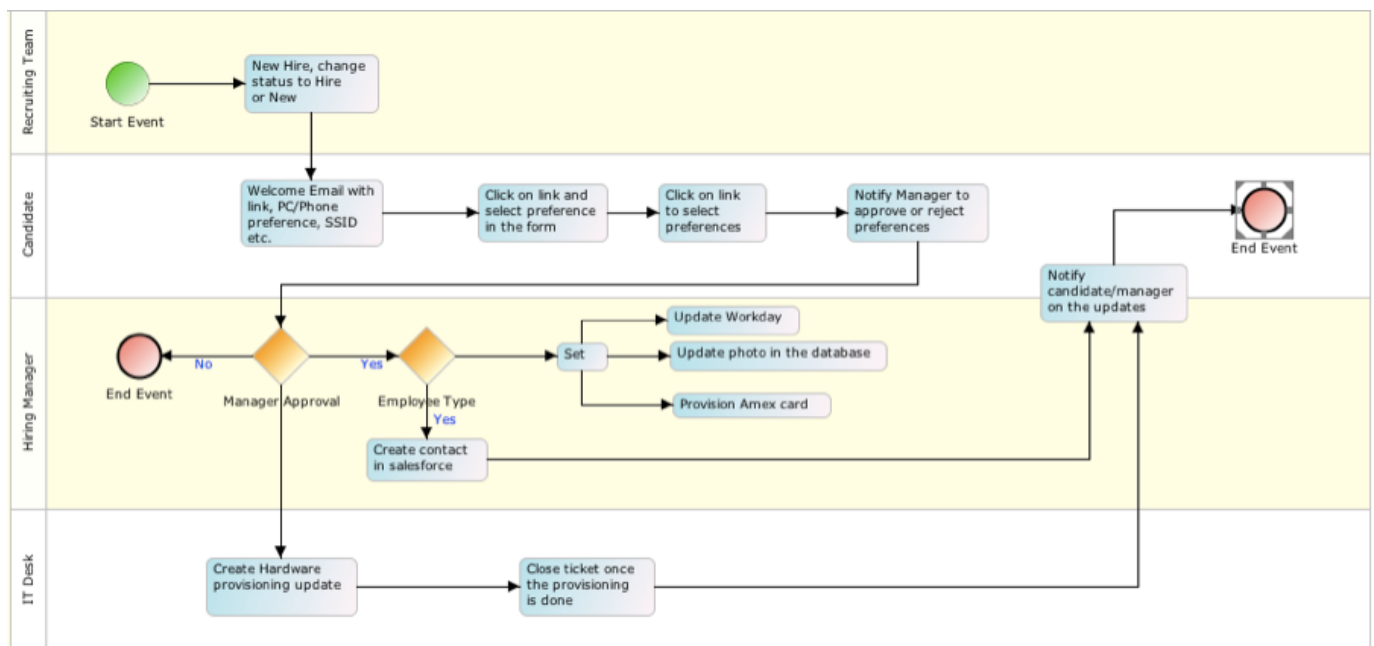Here's the same process flow when designed and configured in Adeptia

Figure2. Employee On-boarding Workflow in Adeptia

You can import a Visio diagram into Adeptia Process Modeler and get started quickly without having to draw the flow from scratch, it saves time and allows you to focus on configuring the process flow rather than redrawing it in Adeptia. Workflows related to new employee provisioning can also require integration with Cloud based SaaS applications such as Workday, Bamboo HR, online Payroll services, connecting to internal systems such as IT Help Desks, updating ticketing system and notifying managers and supervisors about the status of the employee onboarding. Adeptia provides out-of-the-box integration adapters to on- premise and cloud applications in order to fully convert your manual business processes into automated workflows.

How is the workflow task shown to an end-user?
Run-time interaction with workflows should be easy and intuitive and should not require technical knowledge on how to access and work on a task. Just like we see emails in our inbox, similarly we show workflow tasks on the Adeptia's Workflow Task Manager. Here's an example of a Task Manager that shows the Task Name, Description, Priority, Due Date.

Figure 3. Task Manager in Adeptia

User clicks on the task link which opens up a web form to allow user input.

Here's an example of a task form that allows user to enter their input and submit their work.

Figure 4. Order Review in Adeptia

Adeptia provides a rich Web Form design and publishing interface that allows users to interact with workflow task forms through any device.

How does one keep track of the workflow tasks?

Keeping track of workflows and monitoring user performance is important part of workflow automation.

Adeptia Suite provides pre-built dashboards to show what are open tasks, which ones are on track, which ones are about to be due or the ones that are past due. There are additional data points shown in the dashboard such as the amount of time that a task is open or waiting for user to respond. Managers can drill down into each workflow to see its current status.
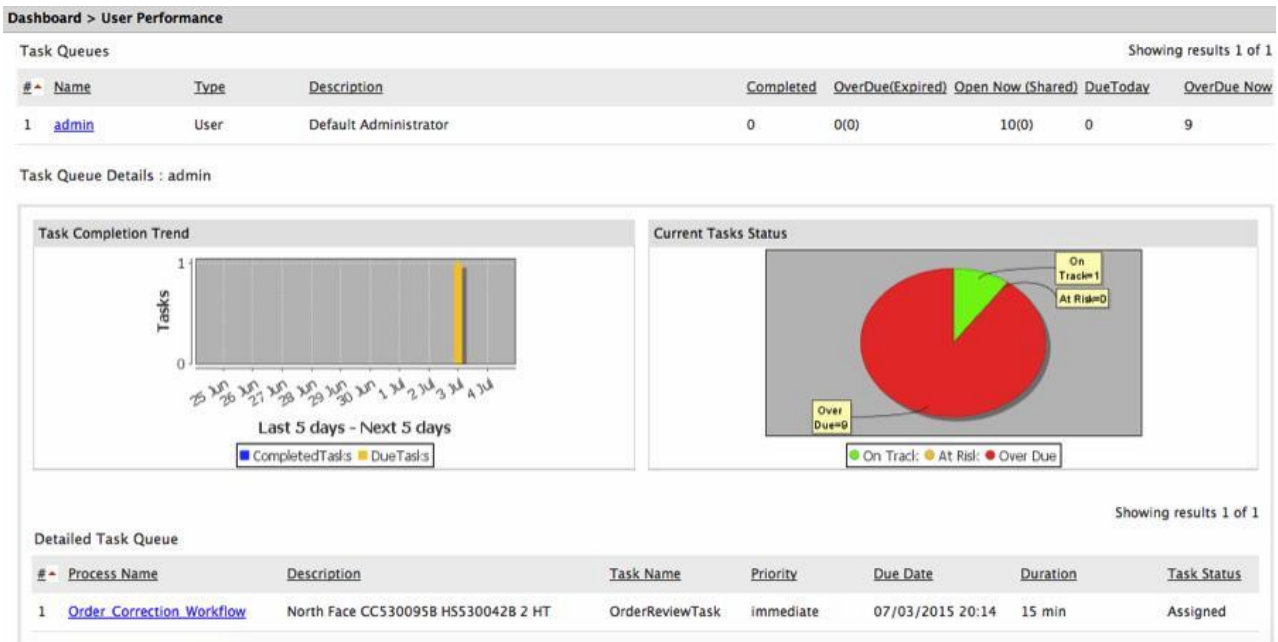

Figure 5.Dashboard in Adeptia

Dashboards also show the active workflows and the ones that have been completed. Detailed Task Queue lets the users see for how long a task is pending and you can reassign the task to another user. Users with access rights can view the details of each of the workflow and see the time it took to complete a workflow, where the bottlenecks exist or identify the parts of the process flow that can be optimized for better performance. Search capability allows users to search a workflow based on the business data fields such as PO#, Item ID or Customer Name etc.
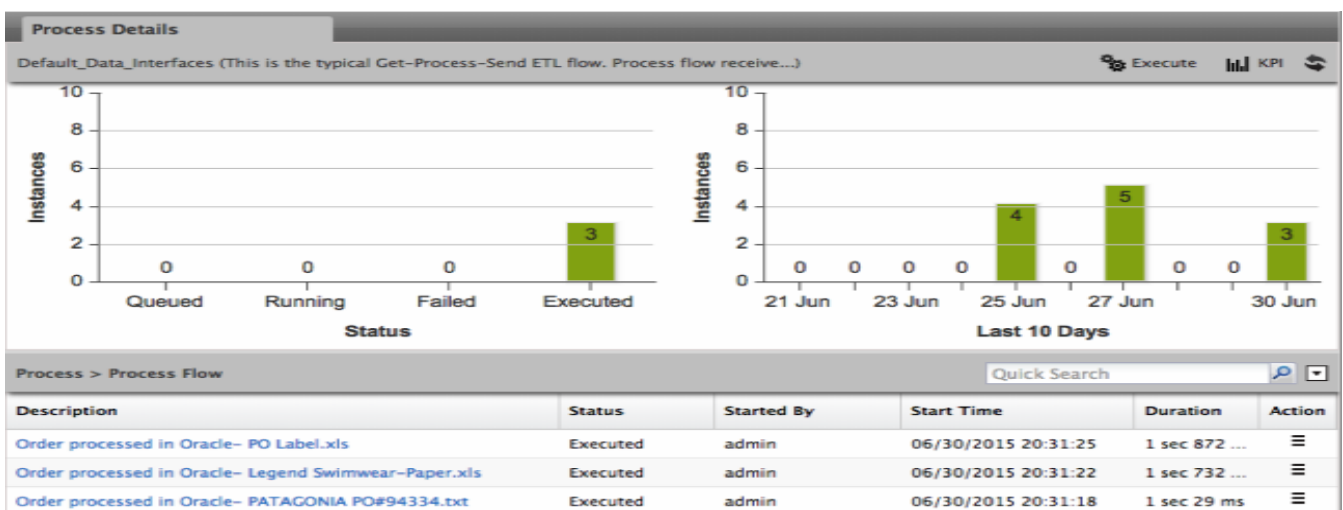

Figure 6. Process Details

How does a user configure web forms in designing *workflow tasks?*

Adeptia provides a rich out-of-the-box web form designer interface. With click and drag capability, users can build dynamic web forms to render data that is visually rich and provide an easy interface for user to interact with the task content
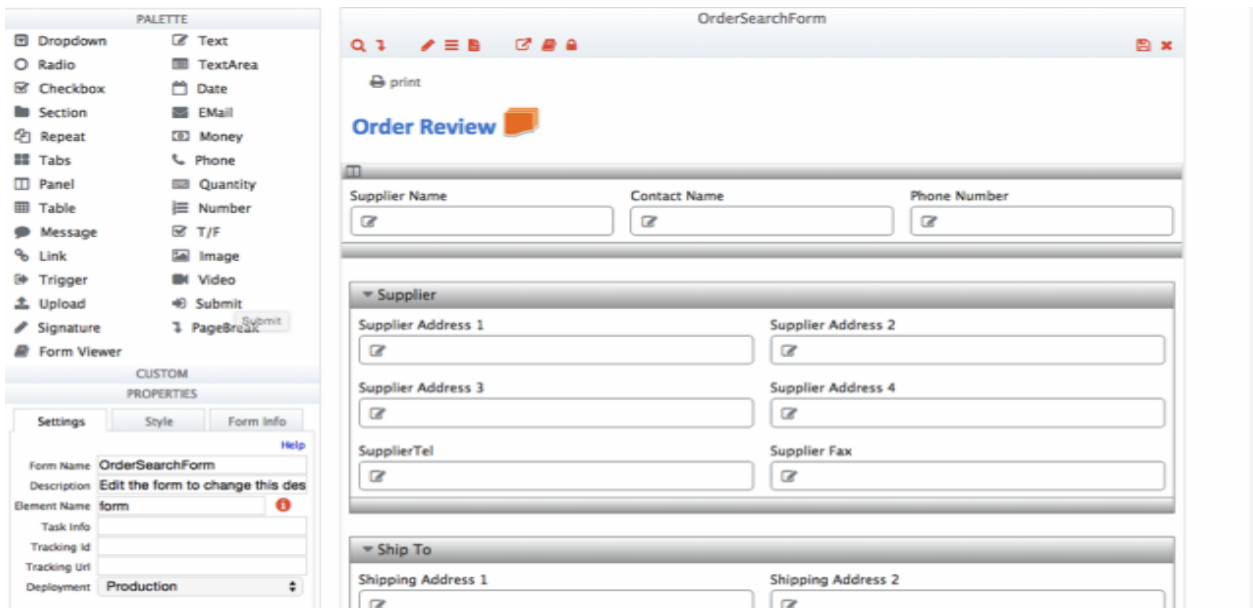
Figure 7 .Web Form in Adeptia

Web forms designer opens up in the browser and provides a palette of components that can be clicked and dragged into the main design canvas. Components such as adding "digital signature" field in the form, dynamic text or drop down menus, tables, nested links to other forms etc. You can add rules to make drop-downs dynamic, to connect to APIs to auto-fill the form fields. You can put validation rules and also write custom java script to configure the form according to your needs. You can also build a workflow wizard in the web form to help user follow a sequence of steps to complete a workflow task.

How does user configure workflow task assignment rules?

To configure rules around task assignment, you can select a "role" or specific user(s) from the list, setup escalation and notification rules as shown below. Alerts in the form of email notifications can be sent out to Managers or Colleagues in case when the process participant is not available to respond to a particular task. User can also attach documents to the tasks.

Figure 8. Workflow Task assignment rules

Adeptia Integration Suite is the only product that combines workflow and data integration in a single platform.

Bpm'online studio

Is an intelligent low-code platform, which enables businesses from various industries, as well as system integrators and software developers to create custom applications exactly for their specific business needs. Bpm online Manage business processes of any complexity and easily build applications for your specific business needs with bpm'online studio. It is a platform for developing custom applications. It is designed for Medium to large businesses, system integrators and developers to implement their unique business processes. It has tools that are designed for both desktop and mobile applications. It enables to crease business process management ,dynamic case management features, system design and base

configuration. There is section wizards to create .Dynamic case management features allows you to dynamically analyse your case Robust business process designer to create a visual design of system tasks that will put your data routine in auto pilot. BPMN notations enable you to design and monitor system processes .Fine tune access permissions for various user groups . The system is available in two deployment options Cloud and On-site.

Over View

Business process management (BPM) use the built-in business process modeling systems to automate your processes of any complexity. The process designer lets you create business process in BPMN notation.

Figure 9.Business Process Designer in bpm online

The [Process log] section will provide tools for business process monitoring and analysis. You can view each process instance as a diagram, check which process steps have completed and stop any business process.

The dashboards of the [Process log] section provide analytical tools for keeping track of business processes in your company.

It has the following sections : System designer
The process designer Process log
Case management
System designer Section wizard Detail wizard Workplaces setup
Data import

Users and roles management Analytics setup
Mobile application wizard

Use the case designer to automate unstructured business processes. These "case" processes are best used if the case goal can be achieved in a number of ways that may change during the course of the process and cannot be foreseen.
Bpm'online studio has all the tools necessary for creating custom solutions. All configuration tools are available in the system designer. Create and edit sections, set up section and page properties using the section wizard. To add new details or edit existing ones in the sections, use the detail wizard. Set up appearance by uploading your corporate logos, change the color of the section panel, set up workplaces for different types of users. Use data import to quickly populate the database with initial information. Generate company

organization structure, add users, set up functional roles and access permissions. Set up analytical reports and dashboards in the [Dashboards] views and the [Dashboards] section. Use the mobile application wizard to set up the mobile app of your custom configuration. Advanced settings area of the system designer provides access to development tools.

Base configuration

Bpm'online studio has six base sections: [Employees], [Contacts], [Accounts], [Activities], [Feed] and [Dashboards].

Use the [Activities] section to plan your work hours, schedule meetings and tasks.

Maintain a centralized database of companies and contacts in the [Accounts] and [Contacts] sections. Use these sections to store, update and analyze full scope of information about your customers, contact persons, customer accounts, suppliers, competitors and more.

Maintain an up-to-date database of your human resources in the [Employees] section. Here you can store and update information about past and present employees, their contact details, career movements and access rights. The dashboards of the [Employees] section provide useful HR analytics.

Use the [Dashboards] section to check system-wide analytics, available in a comprehensive visualized way. Check workload statistics, account and contact analytics, HR dashboards and more.

Use the communication panel to interact with customers and colleagues with no need to switch from your current tasks. Make calls, process and send emails, interact with your colleagues through enterprise social network, track noteworthy events, check pending reminders and system notifications,

How to create BPMN business processes
Use the PROCESS DESIGNER to create BPMN business processes.

How to add a new business process

The Process Designer is used to create business process in bpm'online.

To add a new business process:

Click the ⚙ to open the System Designer. 2.Click [Process library].

3. Click the [New process] button (Fig. 68). The Designer will be displayed.

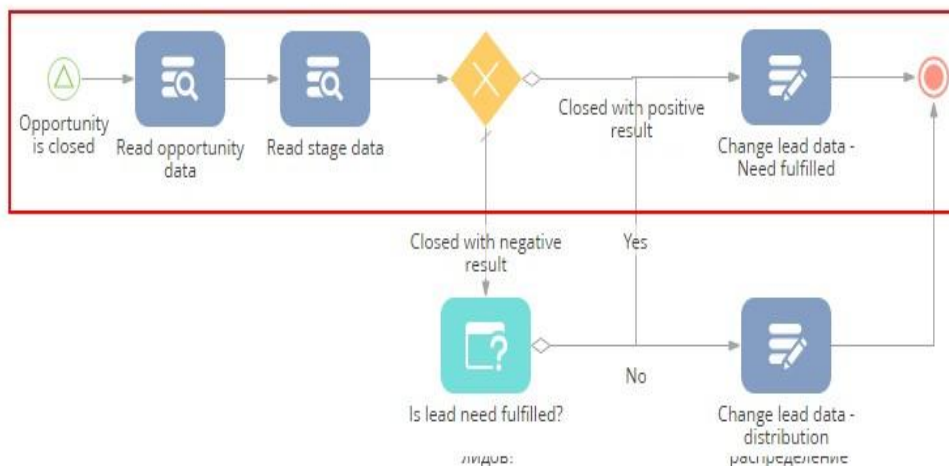**Figure 10.** How to create a business process

Figure 11. Building Oppurtunity Closure Business Process

How to run BPMN business processes

Bpm'online business logic often follows a certain process workflow.

Depending on the settings, the process can be started manually by the user (e.g., from the command line or from

the sidebar) or automatically, based on certain specified events (e.g., when adding or changing a record, or when a field contains a specific value).The system automatically prompts the required steps and guides the user through the necessary path during the process. Once a business process

is started, it starts executing actions in the system. These actions include opening record pages, creating activities and other records, sending emails, etc. A business process ends after its last action has been processed. You can manually start and stop business processes or have them set up to start automatically.

BPMN process monitoring

All the steps performed during the process are stored in the system to control and ensure effectiveness. The built-in analysis tools enable you to find bottlenecks in the processes for future optimization.

CONCLUSION

In this paper we took as a case study two important Software suits ; Adeptia Suite and Bpm ' online Studio . The aim of the comparison is to evaluate both softwares and recommend one of them to be used in the lab of the Enterprise Architecture Course in Department of Information Systems at King Abdulaziz University. Our future recommendation after the comparison would be to provide the two softwares at the lab for the students for next semester , and distribute the students into groups to present and review their comparison on the two softwares.

ACKNOWLEDGMENT

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