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Features of Project Development for Business Process Automation

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Since we live in the «information age», information technology (IT) has become a part of our daily lives. Technology allows us to share information with our friends, family and others. In addition, technology can help us in our daily life.

Technology, which brings together tools to promote development, use and information exchange, has as its main objective of making tasks easier and the solving of many problems of mankind. The development of new technologies helps to save lives; it improves work and makes the world better [1].

In reality, technology has played a very important role in how we live in the world today and how we communicate in the atmosphere with everything around us. So we are developing new innovations to live in a better life. As a result of technological advances, they are increasing and spreading across countries. The positive impact of technology on society has led to change and helped us to reach new heights that have never before been conceived of. We can see the uses and role of information technology in our society in many areas such as business, education, finance, healthcare, security, communication, employment and others.

Information technology (IT) involves the study and application of computers and any type of telecommunications that store, retrieve, study, transmit, manipulate data and send

information. Information technology involves a combination of hardware and software that is used to perform the essential tasks that people need and use on everyday basis.

Information technology needs computer program. A computer program is a collection of instructions that can be executed by a computer to perform a specific task. A collection of computer programs, libraries, and related data are referred to as software. Every software was once a project. A project life cycle is the sequence of phases that a project goes through from its initiation to its closure.

The five key process groups are initiating, planning, executing, monitoring and controlling, closing.

1. Initiating. Defining what needs to be done. Initiating is all about kicking off a project with your team and with the client, getting their commitment to start the project. You bring together all of the available information together in a systematic manner to define the project's scope, cost and resources. The goal of the initiation phase is to take a loose brief of a project and define it in terms of what it needs to do and achieve in order to be successful [2].

2. Planning. This is a crucial process in project management. The planning stage is where the project plans are documented, the project deliverables and requirements are defined, and the project schedule is created.

3. Executing. This process is also known as the implementation phase, in which the plan designed in the previous phase of the project activity cycle is put into action. The intent of the execution phase of the project activity cycle is to bring about the project's expected results [3].

4. Monitoring and control. That means monitoring the project life to ensure the project is going according to plan, and if it isn't, controlling it by working out solutions to get it back on track.

5. Closing. This is considered to be the last process of the project activity cycle. In this stage, the project is formally closed and then a report is produced to the project sponsor/client on the overall level of success of the completed project [3].

After the project charter is created by the sponsors, the project manager starts developing the team and hiring people, usually the business analyst is the first person to join the team after the project manager. Business Analysis is the set of tasks, knowledge, and techniques required to identify business needs and determine solutions to business problems. Solutions often include a systems development component, but may also consist of process improvement or organizational change.

Those performing business analysis are today known by a number of titles such as business analyst, business systems analyst, systems analyst and others. A business analyst works as a liaison among stakeholders in order to elicit, analyze, communicate and validate requirements for changes to business processes, policies and information systems. The business analyst understands business problems and opportunities in the context of the requirements and recommends solutions that enable the organization to achieve its goals.

There are different types of requirements:

1. *Business Requirements* describe such things as the reasons why a project is initiated, the things that the project will achieve, and the metrics which will be used to measure its success.

2. *User Requirements* describe the needs that a given stakeholder has and how that stakeholder will interact with a solution. User Requirements serve as a bridge between Business Requirements and various classes of solution requirements.

3. *Functional Requirements* describe the behavior and information that the solution will manage.

4. *Quality of Service Requirements* capture conditions that do not directly relate to the behavior or functionality of the solution, but rather describe environmental conditions under which the solution must remain effective or qualities that the systems must have. They are also known as non-functional or supplementary requirements.

5. *Assumptions and constraints* identify aspects of the problem domain that are not functional requirements of a solution, and will limit or impact the design of the solution.

6. *Implementation requirements* describe capabilities that the solution must have in order to facilitate transition from the current state of the enterprise to the desired future state, but that will not be needed once that transition is complete [4].

Requirements management is the process of eliciting requirements from the business then analyzing the requirements and presenting them in a way that clearly communicates to the stakeholders. Requirements management includes the following: elicit requirements from the business, by conducting requirements elicitation meetings, JAD sessions, interviewing, etc. Eliciting requirements is a key task in business analysis. Because the requirements serve as the foundation for the solution to the business needs it is essential that the requirements be complete, clear, correct, and consistent. Leveraging proven means to elicit requirements will help meet these quality goals [4]. 40-60% of all project defects are associated with this stage.

There are several techniques that you will be using to gather requirements from different subject matter experts. Some books define the requirements gathering tools and techniques as follows: Interviews, Focus groups, JAD Sessions, Questionnaires and surveys, Observation, Prototype.

In addition to the techniques for eliciting requirements, various techniques for modeling business processes are distinguished. Processes are modeled to visualize how the process works. There are a variety of models and graphical representations of business entities that may be used to create the Business Architecture:

1. *The Component Business Model* has evolved from traditional views of a business, such as business units, functions, locations or processes.

2. Business *Process Models* are often referred to as *Activity Models*. They describe the process associated with business activities and the information exchanged between activities.

3. A *Class Model* describes static information and relationships between information.

4. Business scenarios are a valuable technique that may be used as an input to the development of the Business Architecture to help identify and understand the workings of the business, and thereby to derive the business requirements and constraints that the architecture must address [4].

Information systems and technologies are present in every area of our life today. And we, as users, always want the applications to work correctly and facilitate some tasks. Various models, techniques, and graphical representations of the processes have been developed to facilitate the identification of requirements and the understanding of business processes.

Most defects in projects are associated with poor quality requirements elicitation. Therefore, it is so important that at the stage of collecting requirements and analyzing them, all the wishes of customers and stakeholders are collected.

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