John-Luke Speight
CS 3398.001 HW8
Due: 11/17/21

① <u>Service engineering process</u>: The process of developing services for reuse in service oriented applications. Service engineers have to ensure that the service represents a reuseable abstraction that could be useful in different systems.

<u>Service candidate identification</u>: where the engineer identifies possible services that might be implemented and define the service requirements.

<u>service design</u>: where you design the logical service interface and its implementation interfaces (SOAP-based and/or RESTful).

<u>Service implementation and deployment</u>: Where you implement and test the service and make it available for use. This is the final stage of the service engineering process that involes programming the service using a language such as Java or C#. Sometimes a service may be composed of augmented legacy code.

<u>Service requirements</u>: The functional service requirements should define what the service should do. Operation and parameters within an abstract interface design.

<u>service interface specification</u>: The entities and operations must be identified and drafted into an abstraction that creates the service parameters. If SOAP-based service are used, you have to design input and output messages. If RESTful services are used, you have to think about the resources required and how the standard operations should be used to implement the service operations.

<u>validated and deployed service</u>: The software has been deployed to the customer after management validates its production.

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② **Project planning process-** This is an iterative process that starts when you create an initial project plan during the project startup phase. Project managers are responsible for planning, estimating, and scheduling project development and assigning people to tasks.

Identify Contraints: constraints can include the budget, staffing, and training insufficiencies that may impede upon production. Managers must work within these constraints in order to accomplish development.

Identify Risks: Project, product, and business risks may affect teams productivity. These include technology risks, organizational risks, people risks, requirements risks, estimation risks, and tools risks.

Define milestones and deliverables: A project milestone is a predictable outcome of an activity or set of activities. This component consists of a formal progress report of progress that will be presented to management. A deliverable is a work product that is delivered to the customer.

Define Project schedule: The schedule displays the project being broken into tasks of sufficient size. Each task should take about a week or two to complete.

<<System>> Project Planner: A program that oversees the project schedule being defined and the phases that follow.

Do the work: This step literally insinuates the labor required to complete the task at hand.

Monitor Progress against plan: Progress made during production needs to be compared to the plan concurrently.

Initiate Risk mitigation actions: If there are serious problems with the development work that are likely to lead to significant delays, risk mitigation must follow. This involves actions that reduce the risks of project failure.

Replan Project: In conjunction with the actions of the risk mitigation, the renegotiation of project constraints and deliverables follow. A new schedule of work should be established and agreed upon by the customer.

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3) <u>Risk Monitoring</u>: This action involves the / regular risk assessment followed by planning for risk mitigation. The timely assessment of whether or not a risk is becoming more or less probable is imperative during this process.

(ex.1) Estimation; Failure to meet a greed schedule and failure to clear reported defects.

(ex.2) Technology: late delivery of hardware or support software; many reported technology problems.

4) <u>Kanban Board</u>: A kanban board is one of the tools that can be used to implement Kanban to manage work at a personal or organizational level. Kanban boards visually depict work at various stages of a process using cards to represent work items and colums to represent each stage of the process.