Module 6:

Solution Evaluation and Optimization

Section learning objectives

- Solution evaluation definition
- Assessing the solution options (proposals)
- Evaluating performance of the solution
- Solution/business process optimization
- Exam question

Solution evaluation

- **Evaluation** – systematic assessment of an organization, process, or solution to determine its status and/or performance in meeting objectives over time, and to identify ways to improve it to better meet objectives.

- IQBBA: Solution Evaluation covers a set of activities that are performed in order to ensure that the capabilities provided by the solution proposal fulfill the stated Business Need(s), and satisfy business, stakeholder and solution requirements.

- Describes the tasks that business analysts perform to assess the performance of and value delivered by a solution in use by the enterprise, and to recommend removal of barriers or constraints that prevent the full realization of the value.

Solution Evaluation

Solution Evaluation tasks can be performed on solution components in varying stages of development:

- **Prototypes or Proofs of Concept**: working but limited versions of a solution that demonstrate value
- **Pilot or Beta releases**: limited implementations or versions of a solution used in order to work through problems and understand how well it actually delivers value before fully releasing the solution.
- **Operational releases**: full versions of a partial or completed solution used to achieve business objectives, execute a process, or fulfill a desired outcome.

Tasks in Solution Evaluation

- Measure solution performance
- Analyse performance measures
- Assess solution limitations
- Assess enterprise limitations
- Recommend Actions to Increase Solution Value

Measure solution performance

- Performance measures determine the value of a newly deployed or existing solution.
- The measures used depend on the solution itself, the context, and how the organization defines value.
- Measure types
  - **Quantitative Measures**: are numerical, countable, or finite, usually involving amounts, quantities, or rates.
  - **Qualitative Measures**: are subjective and can include attitudes, perceptions, and any other subjective response. Customers, users, and others involved in the operation of a solution have perceptions of how well the solution is meeting the need.

Analyze performance measures

- In order to meaningfully analyze performance measures, business analysts require a thorough understanding of the potential value that stakeholders hope to achieve with the solution.

- To assist in the analysis, variables such as the goals and objectives of the enterprise, key performance indicators (KPIs), the level of risk of the solution, the risk tolerance of both stakeholders and the enterprise, and other stated targets are considered

Assess solution limitations

- Determine the factors internal to the solution that restrict the full realization of value

- Assessing solution limitations identifies the root causes for under-performing and ineffective solutions and solution components

- This assessment may be performed at any point during the solution life cycle. It may occur on a solution component during its development, on a completed solution prior to full implementation, or on an existing solution that is currently working within an organization.

Assess enterprise limitations

- Determine how factors external to the solution are restricting value realization
- Solutions may depend on environmental factors that are external to the enterprise.
- Enterprise limitations may include factors such as culture, operations, technical components, stakeholder interests, or reporting structures
- This assessment may be performed at any point during the solution life cycle. It may occur on a solution component during its development or on a completed solution prior to full implementation

Recommend Actions to Increase Solution Value

- Understand the factors that create differences between potential value and actual value, and to recommend a course of action to align them
- Recommendation types
  - Do nothing
  - Organizational change
  - Reduce complexity of interfaces
  - Avoid waste
  - Identify additional capabilities
  - Retire solution

Common methods for Solution Evaluation

- Common methods for evaluating a solution:
  - Reviews and inspection (often based on a Requirements Traceability Matrix (RTM) and/or requirements specification documents)
  - Demonstrating the solution proposal (prototype) to the stakeholders with the aim of explaining and confirming the appropriateness of the implemented requirements
  - Collecting stakeholder's feedback regarding the solution proposal(s)

Common methods for Solution Evaluation

○ Common methods for evaluating a released solution include:

- Reviews against defined KPIs, or acceptance and evaluation criteria

- Reviews against requirements stated in the Business Case

- Root cause analysis (for problem analysis)

- Usability evaluation

Exam Questions

Question 1

You are examining a solution deployed into the working environment against requirements defined in a Business Case. According to the Business Case, end users should be able to use the solution without a need for any additional training or instruction.

What solution evaluation activity will be needed to conduct the evaluation?

- [A] Usability evaluation
- [B] Reviews against performance metrics
- [C] Reviews against technical requirements
- [D] Feasibility analysis

Question 2

You would like to demonstrate the solution proposal to the stakeholders with the aim of explaining and confirming the appropriateness of the implementation of the requirements. The Business Case contains the following constraint:

"To demonstrate the proper implementation of each requirement, the statement coverage (achieved by the test cases) for each of the features related to this requirement must be 80% or higher"

You obtained the following report on features and coverage:

Based on the information covered by the above scenario, what should be the next step to be done?

Requirement	Feature	Statement coverage
Login	Correct login process when all data correct	100%
Login	Ability to re-enter the password if wrong	85%
Login	"Forgot password" reminding mechanism	80%
Registering	Correct registration if all data correct	90%
Registering	Report on mistakes if some data wrong	75%

- [A] One of the features should be tested more thoroughly.

- [B] The solution meets the Business Case constraints and it can be presented to the client.

- [C] "Login" requirement needs more testing.

- [D] One feature for the "Registering" requirement is missing.

Question 3

Which of the following is not a typical purpose of optimization?

○ [A] Reducing operational cost

○ [B] Improving quality

○ [C] Facilitating communication with other solutions

○ [D] Reducing the number of system functions

Section Learning Objectives Reflection

The learning objectives for this section are:

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