



## **EIS Technical Solution Design Part 1**

### **IV. LESSON PROPER**

#### **Technical Solution Design**

The purpose of Technical Solution (TS) is to design, develop, and implement solutions to requirements. Solutions, designs, and implementations encompass products, product components, and product-related lifecycle processes either singly or in combination as appropriate.

The Technical Solution process area is applicable at any level of the product architecture and to every product, product component, and product-related lifecycle process. Throughout these areas, where we use the terms product and product component, their intended meanings also encompass services and their components.

The process area focuses on the following:

- Evaluating and selecting solutions (sometimes referred to as “design approaches,” “design concepts,” or “preliminary designs”) that potentially satisfy an appropriate set of allocated requirements
- Developing detailed designs for the selected solutions (detailed in the context of containing all the information needed to manufacture, code, or otherwise implement the design as a product or product component)
- Implementing the designs as a product or product component

Typically, these activities interactively support each other. Some level of design, at times fairly detailed, may be needed to select solutions. Prototypes or pilots may be used as a means of gaining sufficient knowledge to develop a technical data package or a complete set of requirements.

Technical Solution specific practices apply not only to the product and product components but also to product-related lifecycle processes. The product-related lifecycle processes are developed with the product or product component. Such development may include selecting and adapting existing processes (including standard processes) for use as well as developing new processes.

Processes associated with the Technical Solution process area receive the product and product component requirements from the requirements management processes. The requirements management processes place the requirements, which originate in requirements development processes, under appropriate configuration management and maintain their traceability to previous requirements.

For a maintenance or sustainment project, the requirements in need of maintenance actions or redesign may be driven by user needs or latent defects in the product components. New requirements may arise



from changes in the operating environment. Such requirements can be uncovered during verification of the product(s) where actual performance can be compared against the specified performance and unacceptable degradation can be identified. Processes associated with the Technical Solution process area should be used to perform the maintenance or sustainment design efforts.

## Project Information

On a building construction project, the 'project information' is all the information, in whatever format, that is used to create, communicate and realize the project from its inception.

Given the potentially large number of people that may be involved in such projects, including clients, consultants, contractors, subcontractors, and other stakeholders, the amount of information created can be enormous and may include letters, sketches, drawings, schedules, bills of quantities, specifications, contracts, models and so on. This includes information that, whilst it may have been superseded, nevertheless contributed to the overall realization of the project and so is typically retained for record purposes.

### Example:

<b>NAME</b>	ClickIT
<b>DESCRIPTION</b>	Develop a system that will help university staff to monitor and solve the reported concern or issue inside the campus immediately.
<b>BUSINESS SPONSOR</b>	Rose Anne Tanjante
<b>OBJECTIVE</b>	To optimize the business services of report and monitoring with rewards system by developing a web application and a mobile application to provide a systematic and improved approach in solving and monitoring of reported issues and concerns.

## Executive Summary

An executive summary is a brief introduction and summary of your business plan. It should describe your business, the problem that it solves, your target market, and financial highlights.

A good executive summary grabs your reader's attention and lets them know what it is you do and why they should read the rest of your business plan or proposal. It's not unusual for investors to make an initial decision just based on reading an executive summary, so it's important to get it right. We'll show you how to write an executive summary that sets your business plan apart from the rest.



### How long should an executive summary be?

The general rule of thumb is that executive summaries should be as short as possible. Your audience has limited time and attention and they want to get the details of your business plan as quickly as possible.

#### Example:

To accommodate and monitor the reported concerns and issues, ClickIT was proposed to adapt a generic business process to validate, verify, monitor and solve the report. This proposed project will provide an efficient way to handle and manage every reported issues and incidents being encountered inside the university.

The proponent sees this as a chance to improve the business transactions and strategies of Report and Monitoring of concerns and issues in Quezon City Polytechnic University using the said application, and intends to create a solution to cater these concerns and interests.

### Requirements Definition

Requirements Definition is an art, and a science. It requires analysts to work very closely with customers and to draw on their communication and technical skills to surface underlying business needs that might be addressed by a system solution. One of the major pitfalls is to “leap to a solution” with an inadequate understanding of the operating problems and fundamental needs of the customer. Requirements analysis is also by nature an explorative and iterative process. Frequently, customers cannot adequately state what they really need until they see what they have asked for in previous requirements iterations with an IT team. As stated earlier in the introduction to this handbook, an iterative project approach may need to be used in which repeated sequences of Requirements Definition, System Design and System Build phases will progressively define and build the solution in iterative or spiral approach.

#### Example:

Req No.	Business Requirement	User Story	Acceptance Criteria	Remarks
U-1	As a Middleman, I should be able to check the sent report if it is valid.	Web App	<ul style="list-style-type: none"><li>Viewing of attached report details.</li><li>Concerns and issues are filtered by category</li></ul>	
U-2	As a Middleman, I want to be able to send the validated report either to OSAS Head or to the Guidance Head or both.	Web App	<ul style="list-style-type: none"><li>Reports should be sent either to OSAS Head and Guidance Head or both</li><li>Viewing of reported concerns and issues details</li></ul>	
U-3	As an Administrative Staff, I want to be able to send the validated report either to OSAS Head or to the Guidance Head or both.	Web App	<ul style="list-style-type: none"><li>Reports should be sent to Maintenance Staff</li><li>Viewing of reported concerns and issues details</li></ul>	



U-4	As a Clicker, I should be able to send a report in a picture or video format.	Mobile App	<ul style="list-style-type: none"><li>• User can send a report in a picture or a video format</li><li>• Mobile app user navigation</li></ul>	
U-5	As a Clicker, I should be able to send a report anonymously.	Mobile App	<ul style="list-style-type: none"><li>• User is able to send a report anonymously</li><li>• Mobile app user navigation</li></ul>	
U-6	As an OSAS Head, I must be able to see the list of reported concerns and issues by category.	Web App	<ul style="list-style-type: none"><li>• Reports is categorizing as: Environment issue and Student issue</li><li>• Dashboard contains the total number of reported concerns and issues by: solve, unsolved, and pending</li></ul>	
U-7	As a Guidance Head, I must be able to see the list of reported concerns and issues by category.	Web App	<ul style="list-style-type: none"><li>• Reports is categorizing as: Environment issue and Student issue</li><li>• Dashboard contains the total number of reported concerns and issues by: solve, unsolved, and pending</li></ul>	
U-8	As an Admin, I want to manage the users of the system.	Environment Setup and configuration	<ul style="list-style-type: none"><li>• User Management</li></ul>	
U-9	As an OSAS Head, I want to manage the monitoring of reported concerns and issues.	Web App	<ul style="list-style-type: none"><li>• Monitoring of reported concerns and issues history</li><li>• Reports are filtered by: solved, unsolved and pending</li><li>• User is able to view all concerns and issues details</li><li>• User can change the initial remarks and status of reported concerns and issues</li><li>• Printable is generated after filtering</li></ul>	
U-10	As a Guidance Head, I want to manage the monitoring of reported concerns and issues.	Web App	<ul style="list-style-type: none"><li>• Monitoring of reported concerns and issues history</li><li>• Reports are filtered by: solved, unsolved and pending</li><li>• User is able to view all concerns and issues details</li><li>• User can change the initial remarks and status of reported concerns and issues</li><li>• Printable is generated after filtering</li></ul>	
U-11	As a Middleman, I should be able to identify the incident by category.	Web App	<ul style="list-style-type: none"><li>• Reports is categorized as: Environment issue and Student issue</li></ul>	
U-12	As an Administrative Staff, I should be able to identify the incident by category.	Web App	<ul style="list-style-type: none"><li>• Reports is categorized as: Environment issue and Student issue</li></ul>	
U-13	As a Clicker, I'd like to be able to redeem my points from sending such issue and concern being encountered inside the campus.	Mobile App	<ul style="list-style-type: none"><li>• View list of reports with equivalent points.</li></ul>	



U-14	As a Clicker, I must be able to notify about my reported concern or issue.	Mobile App	<ul style="list-style-type: none"><li>• Viewing of the report's status</li><li>• Viewing of reported concerns and issues details</li></ul>	
U-15	As an Admin I want to be able to have all source code data used and turnover to internal IT team.	Documentation	<ul style="list-style-type: none"><li>• Source code</li><li>• Accounts/ credentials</li><li>• System Manuals</li></ul>	
U-16	As an Admin I want to be able to maintain an environment for continuous development.	Web Tool	<ul style="list-style-type: none"><li>• Dev, QA, and Prod environment\</li><li>• Setup of System Entities</li></ul>	
U-17	As a Maintenance staff, I must be able to provide a solution on the reported environment issue,	Web App	<ul style="list-style-type: none"><li>• Monitoring of reported concerns and issues history</li><li>• Reports are filtered by: solved, unsolved and pending</li><li>• User is able to view all concerns and issues details</li><li>• User can change the initial remarks and status of reported concerns and issues</li></ul>	