
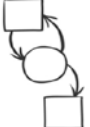

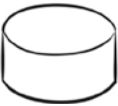
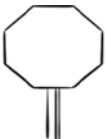
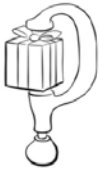
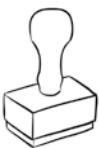

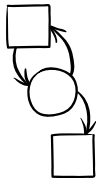

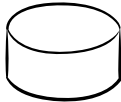
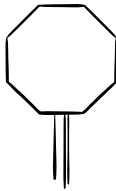
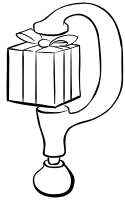


7 Product Dimensions	Question Guide for Agile Product Requirements using the 7 Product Dimensions
 <p>User</p>	<p>Users interact with the product. The product exists to serve users. A user may be a person, another product, or a system that interact with the product. A user may play many roles as they engage with the product. Ask:</p> <ul style="list-style-type: none"> • Who values the product? • Who benefits from it? • Who uses it?
 <p>Interface</p>	<p>The product connects to users, systems, and devices. An interface is the mechanism that users or other systems employ to exchange data with the project. Ask:</p> <ul style="list-style-type: none"> • What interface do you need to build for the users (human and otherwise) to interact with the product? • How does the product receive data? • How does the product send data?
 <p>Action</p>	<p>The product provides capabilities for users. The Action Dimension represents activities that achieve results that the users need. Ask:</p> <ul style="list-style-type: none"> • How do actions provide business value? • How is an action triggered? • What actions does the product take to respond to those triggers?
 <p>Data</p>	<p>The product includes a repository of data and useful information. The Data Dimension represents data (raw facts) and information (interpreted data) needed to support the product's users. Ask:</p> <ul style="list-style-type: none"> • What data do users need from the product? • What data does the product receive? From where? • What data must the product store? How do you know whether the data is valid?
 <p>Control</p>	<p>The product enforces constraints. The Control Dimension represents guidelines or constraints on the conduct of the business and are the basis for decision making. Ask:</p> <ul style="list-style-type: none"> • Why are you motivated to conform to policies and regulations? • What are the risks if you do not comply with control needs? • What violations must be detected?
 <p>Environment</p>	<p>The product conforms to physical properties and technology platforms. The Environment Dimension includes the for physical properties (if the product is physical) and technology platforms (hardware, software, standards) for the product's operational and development environment</p> <ul style="list-style-type: none"> • Where will the product be used? From what physical locations? • What are the product's physical properties? • What technologies and physical means will be used to install, configure, access, revise, license, protect, adapt or dispose of the product? • Does the product need to conform to certain technology standards?
 <p>Quality Attribute</p>	<p>The product has certain properties that qualifies its operation and development. Quality Attributes are predefined levels of service for the product's functionality and interfaces. They describe the product's operational properties (e.g., availability, usability, interoperability, security, safety, etc.) and the development properties (e.g. flexibility, modifiability, portability, reusability, etc.) with predefined levels of service. The properties are for the product's User, Interface, Action, and Data Dimensions. Ask:</p> <ul style="list-style-type: none"> • How will you know whether the quality attributes satisfy partner's needs? • How will you test and measure the quality attributes? • Can the quality attributes be implemented incrementally?

Product Dimensions Image Source: *Discover to Deliver: Agile Product Planning and Analysis*, Gottesdiener and Gorman, 2012

Focus Questions for the Structured Conversation

To explore the product options for the current and future product, you can use focus questions.

	User	Interface	Action	Data	Control	Environment	Quality Attribute
User		How will the user interface with the product?	Will the user's goal be supported by an action? Who will initiate an action?	What data will the user need?	Will the user be constrained by a control?	Where will the user be when interacting with the product? What is the environment like?	Will the user need specific quality attributes when using the product?
Interface	Who (human, other systems) will be using the interface to interact with the product?		Will an inbound interface trigger an action? Will an outbound interface be generated by an action?	Will the product's input and output data be traced to one or more interfaces?	Will the interface enforce a control?	Where will interfaces be accessed? How will interfaces be accessed?	Will interfaces be qualified by quality attributes?
Action	What action will the user initiate?	Will the action need an interface?		What actions will create, read, update, and delete data? What actions will transition a data entity from one state to another?	Will the action enforce a control?	Will the action take place in certain physical locations? Will the action take place on certain technical platforms?	Will actions be qualified by quality attributes?
Data	What data will the user access?	What data will be communicated through interfaces?	What data will actions create, read, update, and delete?		Will the data be constrained by controls?	Where will the data be located? Will the data conform to certain data standards for storage, network access, and concurrency?	Will the data be qualified by specific quality attributes?
Control	What controls will be specific to a user?	Will a control be enforced in an interface?	What controls will an action enforce?	Will a control be specific to a data entity or attribute?		Will the control's jurisdiction and enforcement levels be specific to a location? Will controls be stored and enforced by a technical platform?	Will controls be qualified by specific quality attributes?
Environment	What will be the physical locations where users will access the product?	What physical access mechanisms will be used to interface with the product?	Where will the actions take place? What technology platform will be used to operate system actions?	What technology platforms will be used to access, store, distribute, back up, and recover the data? What standards for data will be used?	Will a location require certain controls? Will there be a technical platform to store and enforce controls?		Will environments be qualified by specific quality attributes?
Quality Attribute	Will there be quality attributes specific to users?	What quality attributes will qualify the interfaces?	Will there be quality attributes specific to one or more actions?	Will there be quality attributes for the data?	Will quality attributes be applied to controls?	Will the quality attributes be supported by the technology platform?	