Creating A Software Solution

Defining and Refining Requirements

Getting Started

- *What Problem Are You Solving?*

- *The Example Project: We need a way to keep track of our goals and how we are doing on them*

  - *This includes Annual goals filtering to quarter and monthly*

Keep It Simple

- *The initial problem to solve should not be more than a few core issues*

- *If there is more than one problem to solve the other "sub" problems should be closely related.*

- *The problem may be a big one that has a lot of sub problems, but there should always be as tight a focus as possible*

Examples

- *Uber - Provide a way to crowdsource taxi services*

- *Facebook (main site) - provide a way to easily keep up with others*

- *Google (main site) - provide a way to search the Internet*

Defining Requirements and Use Cases

Use Cases

- *A use case is a path through the application to achieve a purpose*

- *Consider each path a way to solve the main problem or a related task*

- *Related tasks may be administration, configuration, or solution delivery among other options.*

- *Start with basics and flesh them out.*

Use Cases (cont.)

- *Use cases can be complex and take pages of documentation for each case*

- *Our examples will be simpler ones and drop a few common attributes (stakeholder, etc.)*

- *Do an Internet search for Use Case Templates if you have to start from scratch and prefer some help.*

Example Use Cases

- *A user wants to enter annual goals*

- *A user needs be able to enter progress on a goal*

- *A user needs to complete a goal*

- *A user needs to build goals based on longer term goals*

- *A user needs to review progress*

Use Cases Summary

- *More use cases may appear as we create them*

- *Use cases include an actor, preconditions, post conditions, a main path and notes/exceptions*

- *For ease of reading a title, description and Id are often included as well*

User Wants To Enter Annual Goals

ID:	Goals-1
Title:	Enter an Annual Goal
Description:	Create an annual goal for a user and enter related data
Primary Actor:	Registered Application User
Preconditions:	User is logged into the system
Postconditions:	Goal data is saved for the user
Main Success Scenario:	1. User selects option to create a new goal 2. User selects goal size of annual 3. User enters goal name, estimated time to complete, difficulty, general size, target year, and description 4. User selects to save the new goal 5. Validation of required data is performed 6. Data is stored in the system
Extensions:	1. Name, and time to complete are required. 2. Goal name and target year combine as a unique key 3. User is allowed to quickly add another new goal as well
Frequency of Use:	Frequent

User Enters Progress on a Goal

ID:	Goals-2
Title:	Enter progress on a goal
Description:	Select a goal and enter progress on the same. Other edits like description and similar values will be allowed as well.
Primary Actor:	Registered Application User
Preconditions:	User is logged into the system
Postconditions:	Goal is updated for the user
Main Success Scenario:	1. User searches for a goal, presented results 2. User selects desired goal 3. User selects edit option for the goal 4. Goal data is presented: Name, description, target year, estimated time to complete, and log work value 5. User enters changes and work logged towards goal 6. User saves changes 7. Data is stored in the system
Extensions:	1. Goal name and target year are read only after creation step 2. Logging work will include a time stamp 3. User can cancel and return to goals list
Frequency of Use:	Frequent

Use Case Gaps

- *As we mentioned, creating use cases may suggest new ones*

- *Note that in the use cases so far it looks like there is a potential search for a goal mini-use case*

- *The steps and extensions are great ways to find requirements*

- *Use cases imply the interfaces for the project*

Use Case Testing

- The Use Cases should all point toward the big problem to solve

- When the solution is provided the use cases can provide guidelines for testing (positive and negative paths)

- Use cases are like a story board for an application and should result in a complete story

Practice Analysis

- *Based on what we have so far what are some things that will need to be done? (these are high level requirements)*

- *User Login/Authentication/Administration*

- *Reporting*

- *Goals Display/Snapshot*

- *Application Navigation*

- *Archive/Delete Records?*

- *Visibility across users?*

Assignment

- *Create a problem that is solved by an existing or new application.*

- *For the application write at least 3 to 5 use cases*

- *Provide a short list of high level features that are required based on the Use Cases*

Thanks!

Send any questions, comments, or requests for assistance to info@develpreneur.com or contact us on the site.