## Add Estimation: Case Study

## Scenario

Along with the Product Owner and the team, you've created user stories and acceptance criteria for the Virtual Verde Product Backlog. Now you need to add effort estimations to each user story, which will help the team understand the amount of effort each task will take to complete. Once you have your estimations, the Product Owner can make any necessary adjustments to item priority in the Product Backlog. This information will help your team plan the upcoming Sprint.

The Product Owner has already added a value for each user story in the Product Backlog. In this exercise, value represents how valuable the final deliverable is to the user role or customer. These value points are designated by dollar signs (so, = 1 value point, = 2 value points, etc.).

You will work with the Development Team to determine **relative effort estimations** for each Backlog item. Relative effort estimation isn't just how much effort an item should take to complete. Instead, the Development Team evaluates the amount of effort each item takes *compared to other items* in the Product Backlog.

You can use a number of different methods to estimate effort. Your team has opted to use Story Points, which are based on the Fibonacci sequence of numbers (1, 2, 3, 5, 8, 13, 21, etc.). For example, an item with an effort estimation of "1" should take little effort to complete, while an item estimated at "13" or "21" will take much more effort. There is no prescribed formula for determining Story Points. Rather, teams should work together to compare task estimations to one another.

Epic	User Story Title	Story	Acceptance Criteria	Value	Estimate
Plant Care Initiatives	Low- maintenance options	As a potential customer, I want to find out which plants are easiest to care for so that I can purchase low- maintenance options.	<ol> <li>Ability to sort plants by "beginner,"</li> <li>"intermediate," and "advanced"</li> <li>Ability to search for plants with similar care needs</li> </ol>	\$\$\$	8
Plant Care Initiatives	Plant care tips	As a plant owner, I want to access care instructions easily so that I can keep my plant alive longer.	<ol> <li>Receive plant care leaflet with each order</li> <li>Option to sign up for monthly emails with seasonal care tips</li> </ol>	\$\$\$	8
Plant Care Initiatives	Plant care tools	As a plant owner, I want to have the right tools to care for my plant so that I can keep it healthy and beautiful.	<ol> <li>Can purchase plant care starter kits (for ferns, succulents, vines, etc.)</li> <li>Option to buy partial kits or single tools</li> </ol>	\$\$	13
Plant Care Initiatives	Watering reminders	As a plant owner, I want to remember when to water my plants so that I don't under- or overwater them.	<ol> <li>Option to sign up for reminder texts or emails</li> <li>Option to add reminder stickers for use with calendars to each order</li> </ol>	\$\$	5
Plant Care Initiatives	Expert help & advice	As a plant owner, I want to get expert help and advice quickly so that I know what to do if my plant gets sick.	<ol> <li>Access to live chat support</li> <li>Longer phone support hours</li> </ol>	\$	8
Plant Care Initiatives	Return policy	As a customer, I want a hassle-free way to return my order so that I can be sure I have the right plant for me.	<ol> <li>Credit and return FAQ linked on homepage</li> <li>All orders ship with return labels and instructions</li> </ol>	\$\$	5
Bonsai Trees	Bonsai Selection	As a potential customer, I want to be able to select from a variety of different Bonsai trees so that I can pick the exact type I want.	<ol> <li>Ability to select from multiple tree species</li> <li>Options to sort by species, size, and care requirements</li> </ol>	\$\$\$	13

Epic	User Story Title	Story	Acceptance Criteria	Value	Estimate
Bonsai Trees	Bonsai Shipping	As a customer, I want to know that my tree will be shipped securely so that it arrives in good condition.	<ol> <li>Can review graphic explaining packing and shipping process during checkout</li> <li>Signature required when a Bonsai shipment is received</li> </ol>	\$	5
Bonsai Trees	Bonsai Styles	As a new Bonsai tree owner, I want to learn about different Bonsai styles so I can decide which is right for my tree.	<ol> <li>Customers can visit a guide to different styles (formal &amp; informal upright, broom, cascade, etc.) on website</li> <li>Customers can take a quiz to match their' trees to suitable styles</li> </ol>	\$\$	8
Bonsai Trees	Bonsai Tools	As a Bonsai tree owner, I want to have the right tools to care for my tree so I can shape and style it properly.	<ol> <li>Option to purchase Bonsai starter kits (shears, wire, mesh, fertilizer, etc.) available for purchase</li> <li>Customers can choose from a selection of premium tools (grafting knives, carving tools, root hooks, etc.)</li> </ol>	\$\$	13
Bonsai Trees	Bonsai Techniques	As a Bonsai tree owner, I want to learn how to shape and style my tree so that I can control its growth.	<ol> <li>Can sign up for "Bonsai Basics" online course</li> <li>Can sign up for intermediate styling course</li> <li>Can sign up for advanced techniques online course</li> </ol>	\$\$\$	21
Bonsai Trees	Bonsai History	As a Bonsai tree owner, I want to learn about the Bonsai history and traditions so that I can better appreciate my tree.	<ol> <li>Can purchase booklet on the history of Bonsai in Japan</li> <li>Can purchase booklet Bonsai and Japanese design</li> </ol>	\$\$	13