

A group of people are gathered around a large conference table in a meeting room. The room is filled with sticky notes on the walls and whiteboards. Several laptops are open on the table, and there are coffee cups and water bottles. The people appear to be engaged in a collaborative discussion.

Vertical Story Slicing Takes the Cake

Presented by Kim Poremski

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About Your Presenter



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What is a User Story?



- Lightweight tool derived from Extreme Programming
- Written from perspective of a customer or end user
- Stories represent a single testable concept or idea
- Shifts focus from writing about requirements to talking about them

3Cs – Card, Conversation, Confirmation

Card – details are small enough to fit on a single index card; a request for value; a promise to have a conversation

Conversation – discuss WHAT is needed and WHY

Confirmation – the Acceptance Criteria; how we will know the desired outcomes and value delivery have been achieved

Do you have a good story to tell?

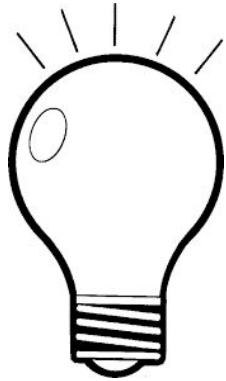


A good user story should include the following:



Roles/Users

Be specific!
User is too generic; identify the role or persona



Feature

Desired capabilities & outcomes; the WHAT



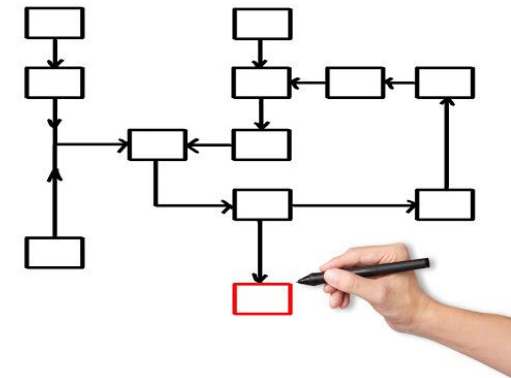
Value

The WHY; the value to the customer or end user



Acceptance Criteria

The confirmation; Given-When-Then technique is popular:
Given precondition,
when action,
then result



Supporting Documents

Pictures, sketches, and diagrams support the conversation and the written user story

User Story Formats



- Title, Who? What? Why?
- As a <User>, I want <Value>, by/through <Feature>
- As a <User>, I want <Feature> because <Value>

View Summary of Active Prescriptions

As a prescription holder, I want to see a summary of all of my active prescriptions because I need a way to easily refill prescriptions.

Acceptance Criteria:

Display list in date order from most to least recent refill date

Display # of refills remaining for each rX

Display expiration date

Sound Familiar?



Too
big

Incomplete,
dependent
stories

Changing
sprint
cadence

What's the
difference?

Carryover to
next sprint

Equally
important

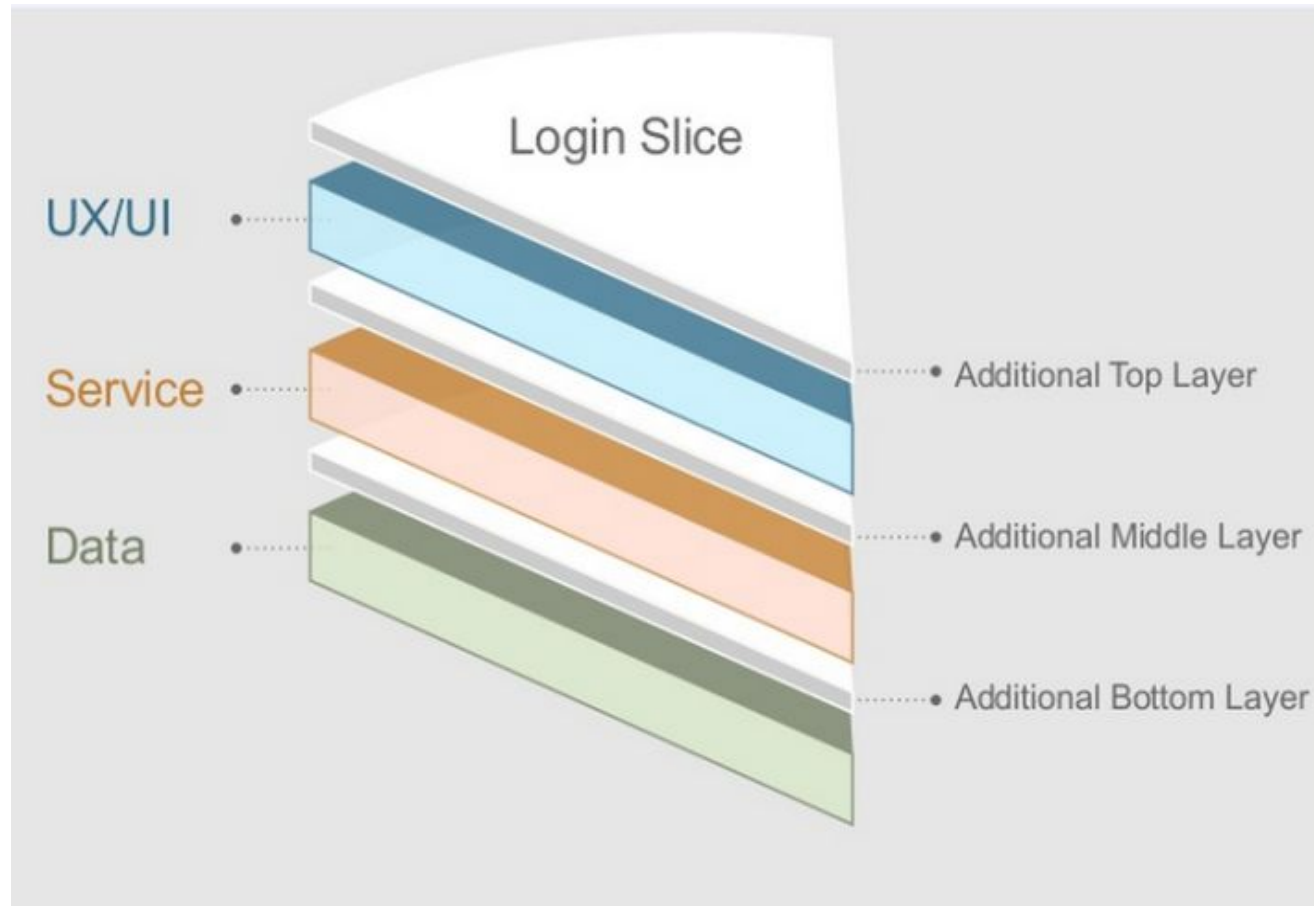
Too
technical

INVEST in Good User Stories

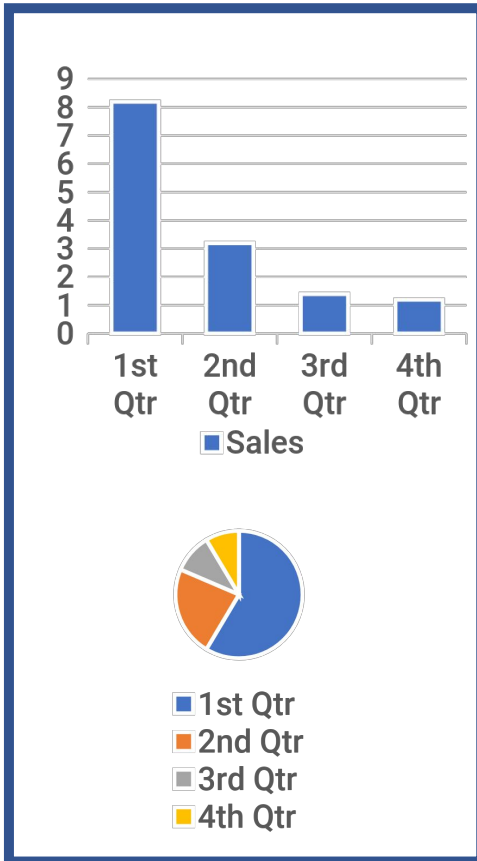


- I Independent
- N Negotiable
- V Valuable
- E Estimable
- S Small
- T Testable

What is Vertical Story Slicing?



Slicing for Data/Reporting



Horizontal

- Modify universe to add data element X to SQL query
- Build a table to store dates and date ranges
- Create a job to pull data into a database
- Convert data to use new data model
- Create a new endpoint on the existing web service to return a static list of filter options

Vertical

- Show business metric A in pie chart with prior year annual totals
- Show business metric A in pie chart with current year annual totals
- Show business metric A in a bar chart with prior year totals
- Show business metric A in a bar chart with current year totals
- Report A – Demographics section
- Report A – Filter by Date
- Report A – Filter by Location

Story Slicing Patterns



- **Workflow steps**
- **Simple/Complex**
- **Business Rule Variations**
- **Major effort**
- **Operations (CRUD)**
- **Variations in Data**
- **Variations in Interfaces/Platforms/Roles**
- **Defer System Qualities**
- **Happy vs. Unhappy Path, Use Cases/Scenarios**
- **Spikes**



Slice by Workflow Steps



- **Split features or stories into steps**

- Add to cart
- Enter billing address
- Enter shipping address
- Enter payment information
- Review Order
- Process Order

- **Tips:**

- Start with beginning and end of workflow where the value is realized then enhance with middle steps
- Take a thin slice through the whole workflow



Slice by Simple/Complex Functionality



- Ship to a single address
- Ship to multiple locations



Slice by Business Rule Variations



- Process transactions in states that don't collect sales tax
- Process transactions in states that do collect sales tax



Slice by Major Effort



- **Create separate stories for each major piece of functionality focusing on the one that requires the most effort**
- **Add items to Shopping Cart**
- **Add Items to Wishlist**
- **Compare Similar Products**



Slice by Operations



- Add item to cart
- View cart
- Update item in cart
- Remove item from cart



Slice by Variations in Data



- Show shipping dates for customers with membership
- Show shipping dates for customers without membership



Slice by Interfaces, Platforms, and Roles



- **Mobile, tablet, PC**
- **IOS, Android**
- **Buyer/Seller; Requestor/Approver**



Slice by System Qualities

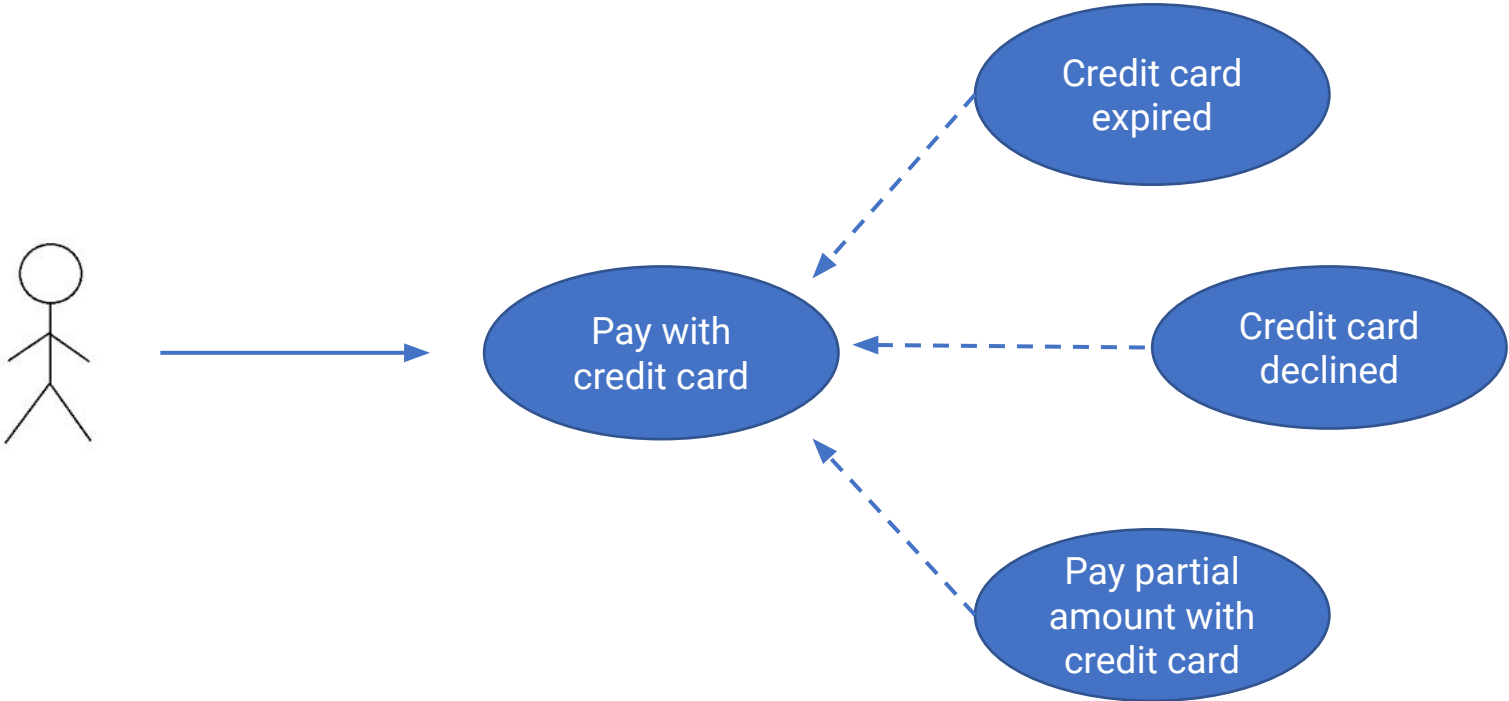


- Performance
- Logging
- Browser compatibility
- Usability

The screenshot displays a web-based interface for viewing system event logs. The interface includes a navigation bar with tabs for 'System Event Logs', 'System Connection Logs', 'Online Users', and 'Syslog Client Management'. Below the navigation bar, there are controls for 'All events', 'Clear', and 'Save', along with a 'Content Search' field. The main area contains a table of log entries with columns for Type, Date, Time, Users, Source IP, Computer name, and Content. The table shows various events, including warnings and information messages, such as scanning being stopped by a user, bad blocks being scanned, and USB devices being detected or removed. The bottom of the interface shows pagination information: 'Page 1 / 1' and 'Display item: 1-39, Total: 39 | Show 50 Items'.

Type	Date	Time	Users	Source IP	Computer name	Content
Warning	2013-05-07	17:07:04	System	127.0.0.1	localhost	[Drive 1] The scanning is stopped by user.
Information	2013-05-07	17:06:55	System	127.0.0.1	localhost	[Drive 1] Start scanning bad blocks.
Information	2013-05-06	08:04:00	System	127.0.0.1	localhost	[USBDisk2] Device detected. The file system is ntfs.
Information	2013-05-06	02:46:29	System	127.0.0.1	localhost	[USBDisk2] Device removed.
Information	2013-05-03	23:23:50	System	127.0.0.1	localhost	[Video Station] Video Station is enabled successfully.
Information	2013-05-03	17:40:41	admin	61.62.220.74	---	[VPN Service] PPTP started successfully.
Information	2013-04-30	22:52:30	System	127.0.0.1	localhost	LAN 1 link is Up.
Information	2013-04-30	22:44:18	System	127.0.0.1	localhost	[USBDisk3] Device removed.
Information	2013-04-30	22:43:43	System	127.0.0.1	localhost	[USBDisk3] Device detected. The file system is ntfs.
Information	2013-04-30	22:43:36	System	127.0.0.1	localhost	[USBDisk3] Device removed.
Information	2013-04-30	22:43:16	System	127.0.0.1	localhost	[USBDisk3] Device detected. The file system is ntfs.

Slice by Happy/Unhappy Paths, Use Cases and Scenarios



Slice by Spikes



I'd like to buy a vowel please!

- Should have an intended outcome and/or answer specific questions
- The exception, not the rule
- Avoid “mini waterfall” approach
- Not a replacement for proper backlog refinement



Story Slicing Clues



Reduce, Reduce, Reduce!



- Can you simplify or reduce even further?
- Remember reducing fractions in grade school?
 - No number, except 1, can be divided evenly into both the numerator and denominator
 - $50/100 \rightarrow 25/50 \rightarrow 5/10 \rightarrow 1/2$



But Wait, There's More!



As a customer,
I want to pay for my
purchases online...



- ◆ Break out by workflow steps
 - Enter billing address
 - Enter shipping address
 - Enter payment information
 - Review Order
 - Submit Order
- ◆ Break out by variations in data
 - Billing address same as shipping address
 - Billing address different than shipping address
- ◆ Break out by business rule variations
 - Enter domestic billing address
 - Enter international address or military base
- ◆ Break out by simple vs. complex
 - Enter domestic billing address with no address validation
 - Enter domestic billing address with basic address validation using zip code lookup table
 - Enter domestic billing address that integrates with a 3rd party address validation service

Story Slicing Exercise – Flight Booking System



As a frequent air traveler, I want to be able to view flight options across airline carriers so that I can choose the ideal times and best prices.

I want to view flight information for all major airlines

I want to book departure & returning flights on different airlines.

I want to book one-way, two-way, and multi-city flights.

I want to filter by airline, price, and time of day.



I want to save multiple itineraries and be notified if the itineraries I've saved have changed price.

Let's Practice Together...



I want to **book**
departure &
returning flights
on **different**
airlines.



Let's Practice Together...



I want to **book**
departure &
returning flights
on **different**
airlines.



1. Select departure flight
2. Select return flight
3. Enter passenger information
4. Select seat assignments
5. Select checked luggage options
6. Enter payment information
7. Submit booking

Workflow

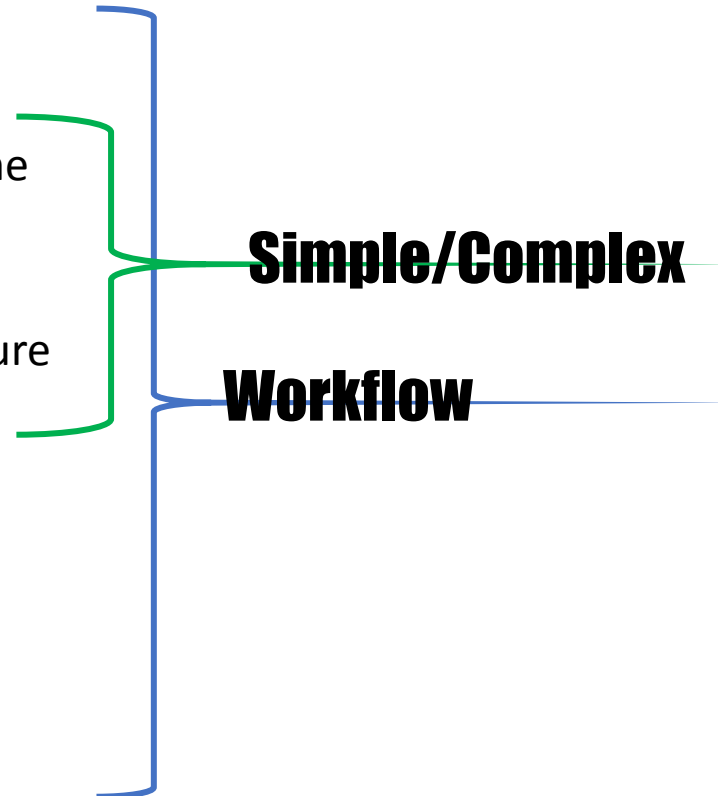
Let's Practice Together...



I want to **book** departure & returning flights on **different airlines**.



1. Select departure flight
2. Select return flight
 1. Select return flight on same airline as departure flight
 2. Select return flight on different airline as departure flight
3. Enter passenger information
4. Select seat assignments
5. Select checked luggage options
6. Enter payment information
7. Submit booking



Let's Practice Together...



I want to **book** departure & returning flights on **different airlines**.



1. Select departure flight
2. Select return flight
 1. Select return flight on same airline as departure flight
 2. Select return flight on different airline as departure flight
3. Enter passenger information
 1. Enter frequent traveler information
4. Select seat assignments
5. Select checked luggage options
6. Enter payment information
7. Submit booking

Simple/Complex

Workflow

Variations in Data

Story Slicing Exercise – Flight Booking System



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Story Slicing Exercise – Flight Booking System



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I want to view **flight information** for **all major airlines**

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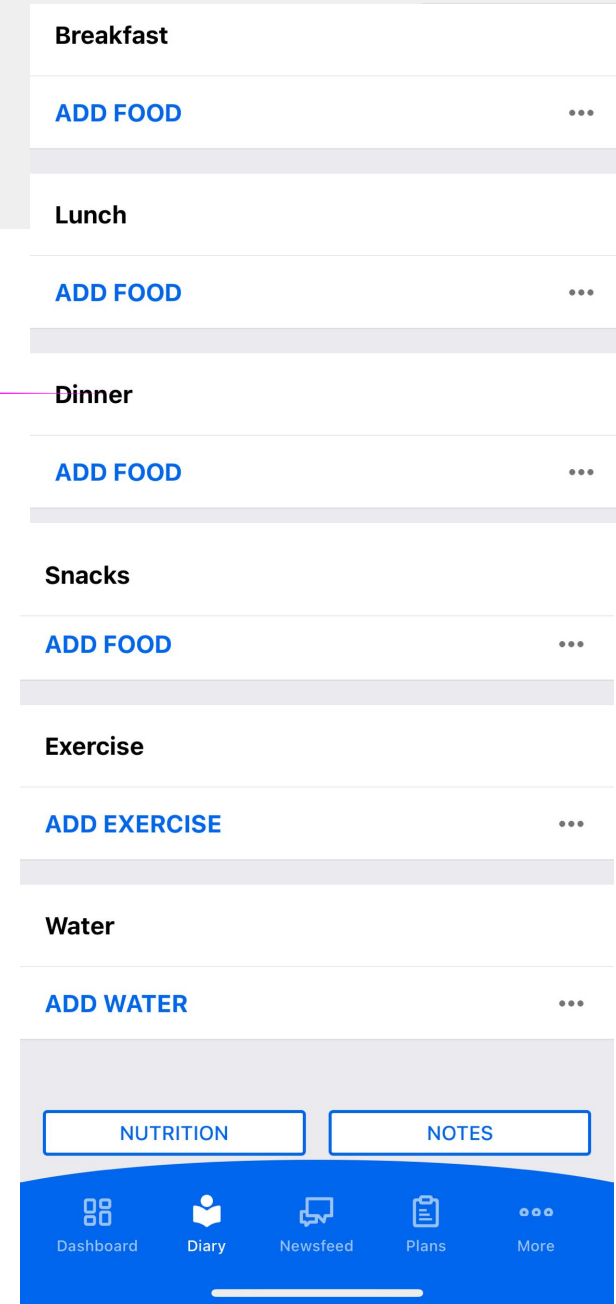
I want to **save multiple itineraries** and be **notified** if the itineraries I've saved have changed price.

Story Slicing – MyFitnessPal

I want to **log my food, water, and exercise** to my daily diary

1. Add Food
2. Add Exercise
3. Add Water

Major Effort



Story Slicing – MyFitnessPal

The app provides many different ways to log food...

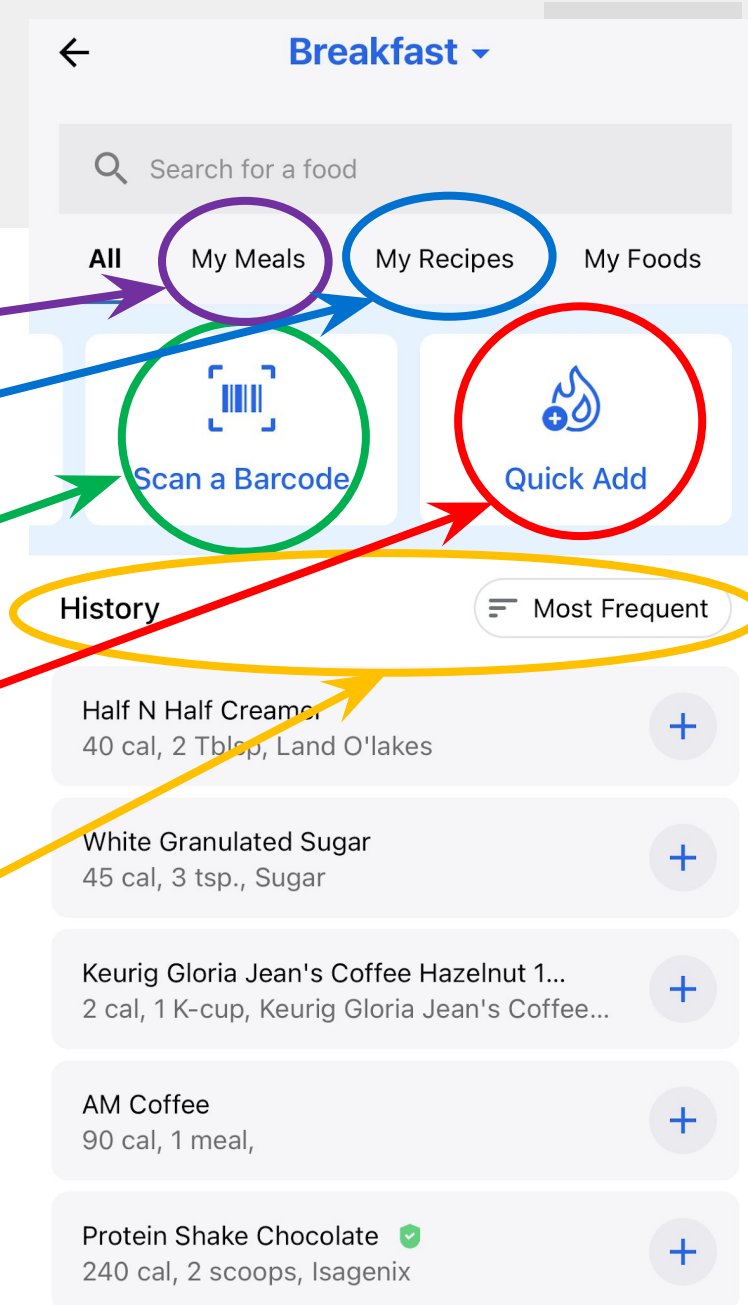
From meals created previously

From recipes created previously

Scan the barcode on a package

Manual Quick Add

From past foods logged



Story Slicing – MyFitnessPal



I want to **log my food, water, and exercise** to my daily diary

1. Add Food
 1. Add by category
 2. Manually enter the details from a nutrition label
 3. Search existing foods in database
 4. History
 5. Scan barcode on a package
 6. Add a meal previously created
 7. Add a recipe previously created
2. Add Exercise
3. Add Water

**Simple/
Complex**

**Major
Effort**

Major Effort

Story Slicing – MyFitnessPal



I want to **log my food, water, and exercise** to my daily diary

1. Add Food
 1. Add by category
 2. Manually enter the details from a nutrition label
 3. Search existing foods in database
 4. History
 1. Most recent
 2. Most frequent
 5. Scan barcode on a package
 6. Add a meal previously created
 7. Add a recipe previously created
2. Add Exercise
3. Add Water

**Simple/
Complex**

**Major
Effort**

Variations in Data

Major Effort

Story Slicing – MyFitnessPal



I want to **log my food, water, and exercise** to my daily diary

1. Add Food
 1. Add by category
 2. Manually enter the details from a nutrition label
 3. Search existing foods in database
 4. History
 1. Most recent
 2. Most frequent
 5. Scan barcode on a package
 1. Barcode can't be read
 6. Add a meal previously created
 7. Add a recipe previously created
2. Add Exercise
3. Add Water

Variations in Data

Unhappy path

Major Effort

**Simple/
Complex**

**Major
Effort**

Slicing Underlying Infrastructure



Support **scanning and manual entry** of barcodes for entering qualified Health Savings Account (HSA) purchases from a **variety of sources**

- Team 1:
 - Create APIs to product lookup databases
 - Implement barcode scanning backend capabilities
- Team 2:
 - Create mobile interface to enter barcodes



Slicing Underlying Infrastructure



Support **scanning and manual entry** of barcodes for entering qualified Health Savings Account (HSA) purchases from a **variety of sources**



- Team 1:
 - Create APIs to product lookup databases
 - Different data sources
 - Different product categories
 - Different retailers
 - Implement barcode scanning backend capabilities
- Team 2:
 - Create mobile interface to enter barcodes

Variations in Interfaces

Variations in Data

Slicing Underlying Infrastructure



Support **scanning and manual entry** of barcodes for entering qualified Health Savings Account (HSA) purchases from a **variety of sources**



- Team 1:
 - Create APIs to product lookup databases
 - Different data sources
 - Different product categories
 - Different retailers
 - Implement barcode scanning backend capabilities

Variations in Interfaces

Variations in Data

Architectural Enabler

- Team 2:
 - Create mobile interface to enter barcodes
 - Manually enter bar codes
 - Scan bar codes

Simple/Complex

Sources & Other Resources



- INVEST Criteria (Bill Wake)
 - <http://xp123.com/articles/invest-in-good-stories-and-smart-tasks/>
- The Hamburger Method (Gojko Adzic)
 - <https://gojko.net/2012/01/23/splitting-user-stories-the-hamburger-method/>
- Patterns for Splitting User Stories (Richard Lawrence)
 - <http://agileforall.com/patterns-for-splitting-user-stories/>
- Story Splitting Flowchart (Richard Lawrence)
 - <http://agileforall.com/new-story-splitting-resource>
- Deeper Dive into Splitting Workflows (Richard Lawrence)
 - <https://agileforall.com/why-most-people-split-workflows-wrong/>
- 10 Useful Strategies for Breaking Down Stories (Christiaan Verwijs)
 - <http://blog.agilistic.nl/10-useful-strategies-for-breaking-down-large-user-stories-and-a-cheatsheet/>

A group of people are gathered around a large conference table in a meeting room. Several laptops are open on the table, and there are coffee cups and water bottles. The walls are covered with numerous colorful sticky notes, suggesting a collaborative work environment. The scene is dimly lit, with the primary light source being the laptops and the ambient room lighting. The overall atmosphere is professional and focused.

THANK YOU!

APPLIED
FRAMEWORKS 