

SER516

Software Agility:

Project and Process Management

Lecture 07. INVEST in User Stories

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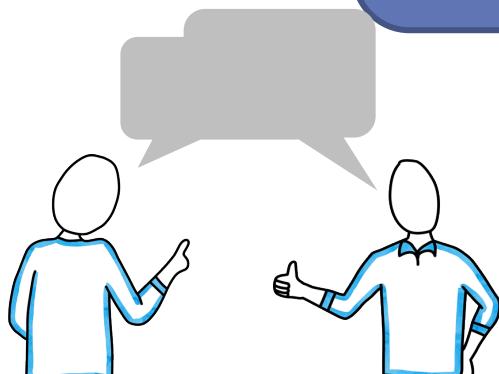
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Office Hours: By appointment

PBI

- Product Backlog Item (**PBI**)= a desirable business value =
- PBI are documented as **user story**

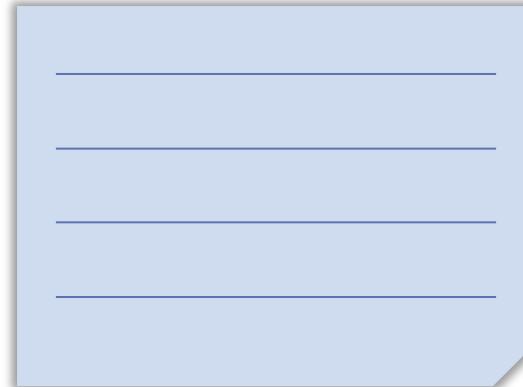
Epic Release (weeks)	Feature / Theme Sprint (weeks)	Story A user story (days)	Task (hours)
Large PBI	Small and detailed PBI	Sprint PBI	
	Small and detailed PBI	Sprint PBI	
	Small and detailed PBI	Sprint PBI	
	Sprint PBI		
	Sprint PBI		



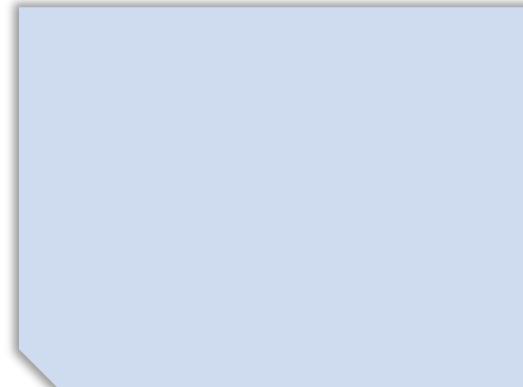
(1) Design, Build, and Test
(2) Knowledge-acquisition

User Stories

- As a <role>
- I want to _____
- So that I can _____



- Conditions of satisfaction
(**verify** _____ statements)



INVEST in good stories

- **I**ndependent – loosely coupled with one another
- **N**egotiable – Stories are what and why , not how (99%).
- **V**aluable – for the customer!
- **E**stimatable – Effort/Cost of design, build, and test.
- **S**mall (sized appropriately)
- **T**estable – pass or fail

Writing Stories

*types.Operator):
 X mirror to the selected
 select.mirror_mirror_x"*

Key Idea

Do not assume that you know what's best
(ignoring the user)

- A) Ask question
- B) Clarify
- C) Two heads are better than one (you are a **team**)

Storyboarding

- **Who?**

- Identify all the roles available
(personas)

- **What?**

- Draft *“a day in the life of...”*

- Think about **What?** And **What if?**

- **Why?**

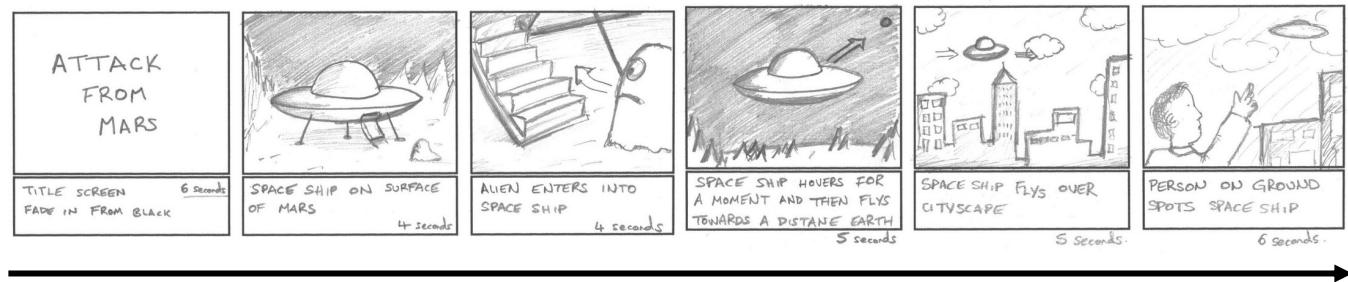
- Value proposition



Storyboard
(describe a journey)

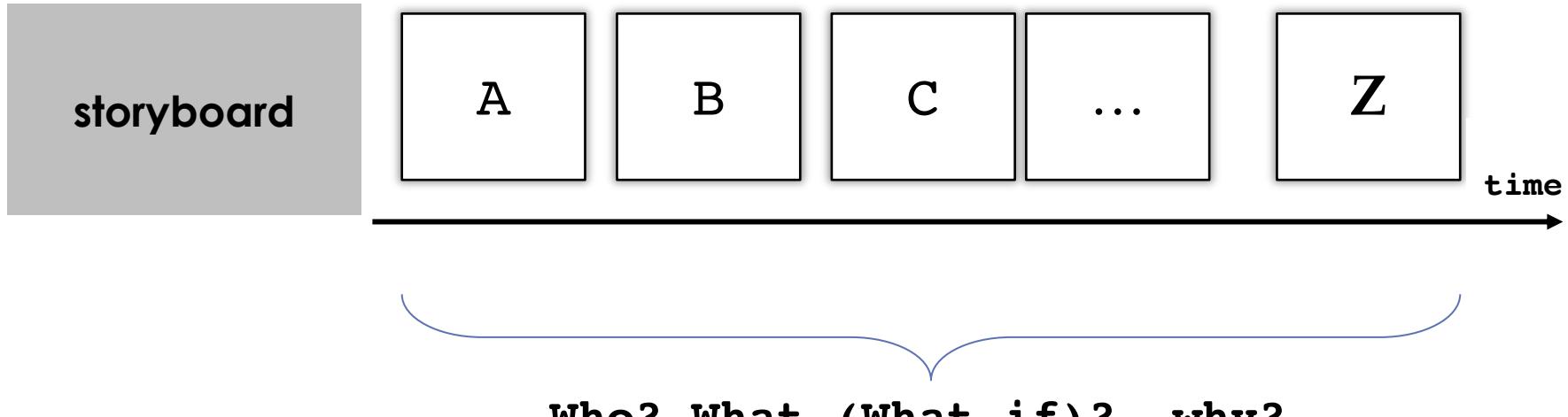
Storyboarding

Storyboard



Who? What (What if)?, why?,

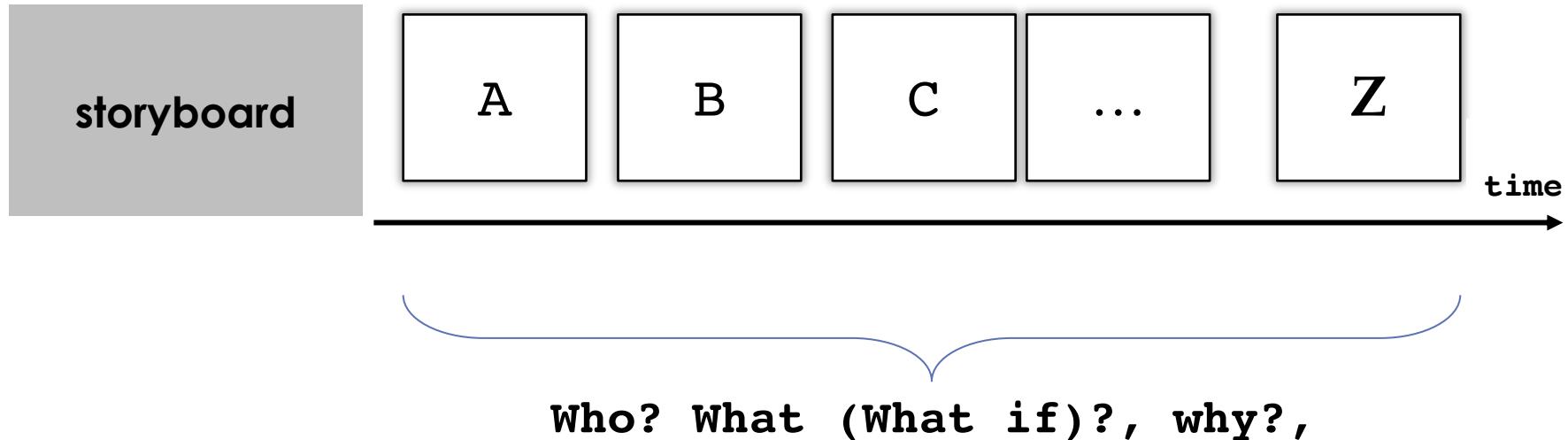
Storyboarding



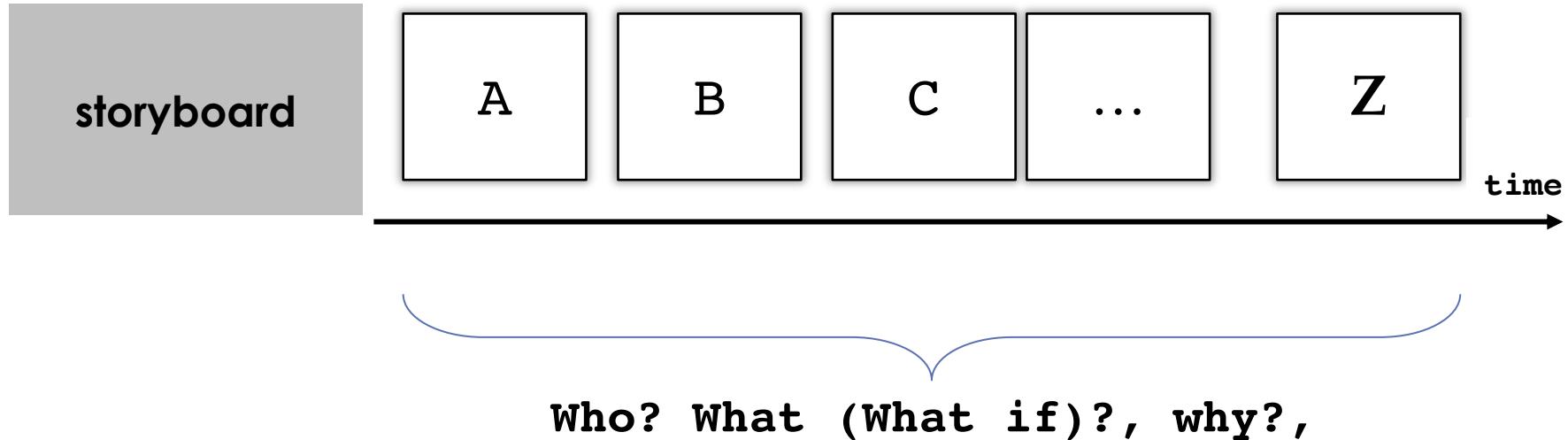
Swaroop Eswara Prasad

Nikita Bahl	Chris Henderson	Manas Mishra	Saurabh Prakash	Varun Srivastava
Raam Prashanth Namakkal Sudhakar 3	Aditya Kumar 5	Gopika Patel 2	Tejasvi Palkar 7	Dileep Pandey 4
Shipra Panwar 6	Suman Parlapalli 3	Abhishek Parmar 7	Jay Patel 3	Meet Patel 6
Iain Perez 1	Aashita Priya 9	Chiranjeevi Ramanurthy 2	Vaishak Vellore 6	Jason Rice 4
Ejaz Saifudeen 6	Balachandar Sampath 3	Nishithi Sawant 5	Aayushi Shah 3	Ayan Shah 6
Shaunak Shah 4	Akash Sharma 6	Rhythm Sharma 3	Anu Shilimkar 5	Namratha Olethy Venkatesh 6

Storyboarding

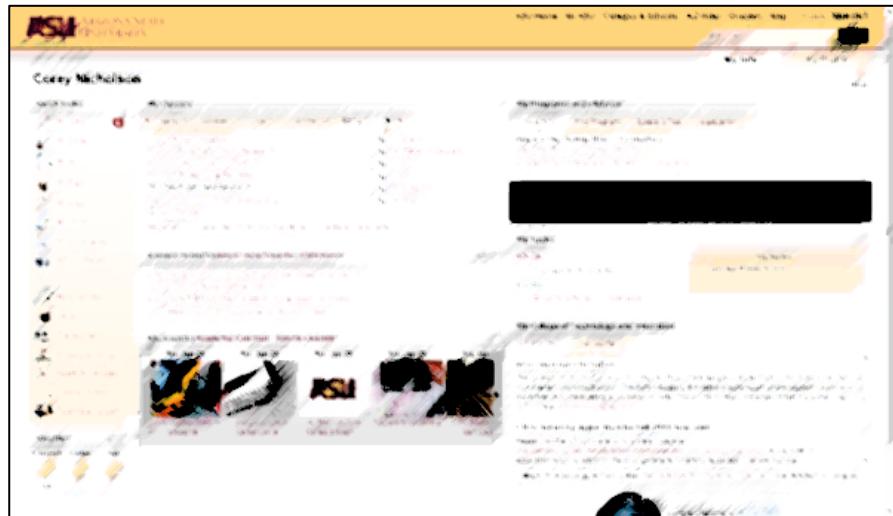
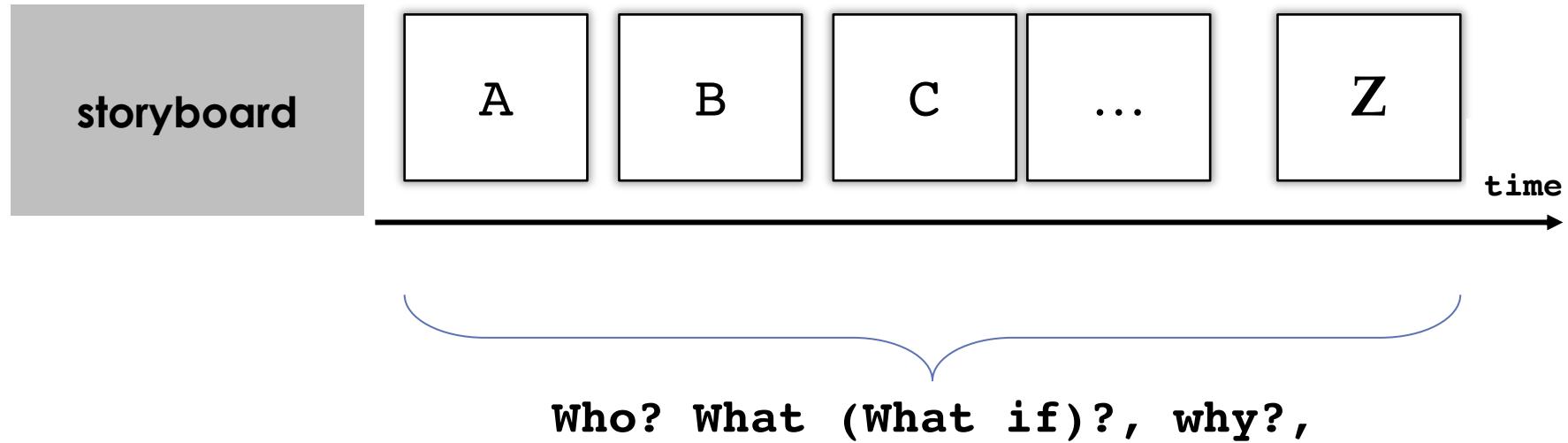


Storyboarding



- As a player, I want to see ghosts moving...
- As a ghost, I want to move...

Storyboarding



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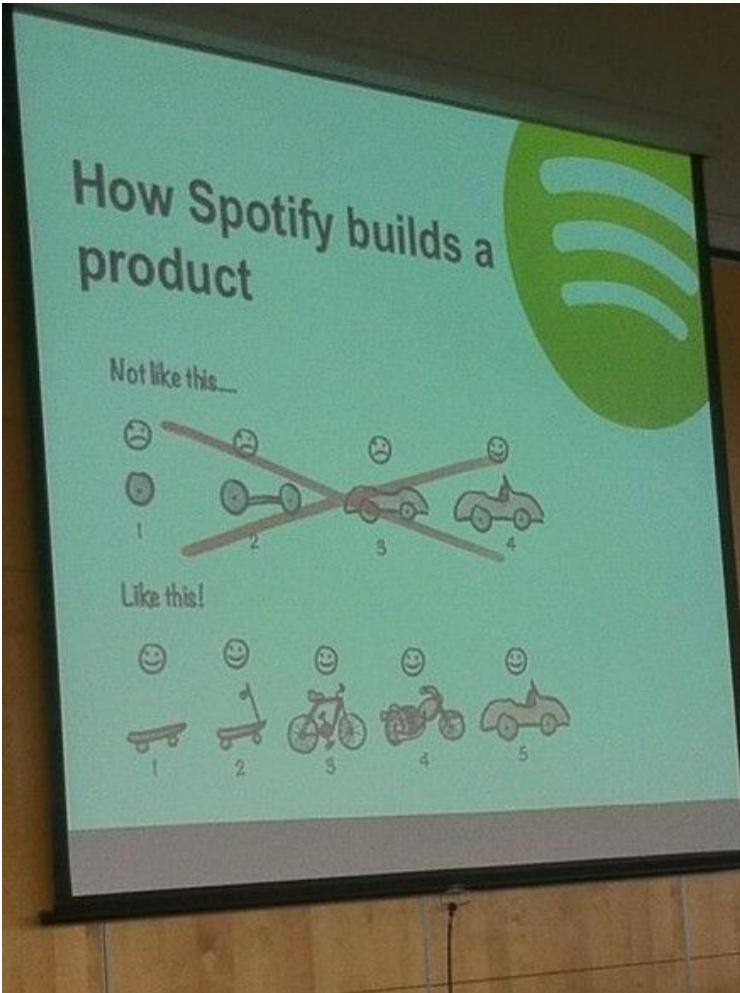
Epics and Stories

*types.Operator):
 X mirror to the selected
 select.mirror_mirror_x"*

Key Idea

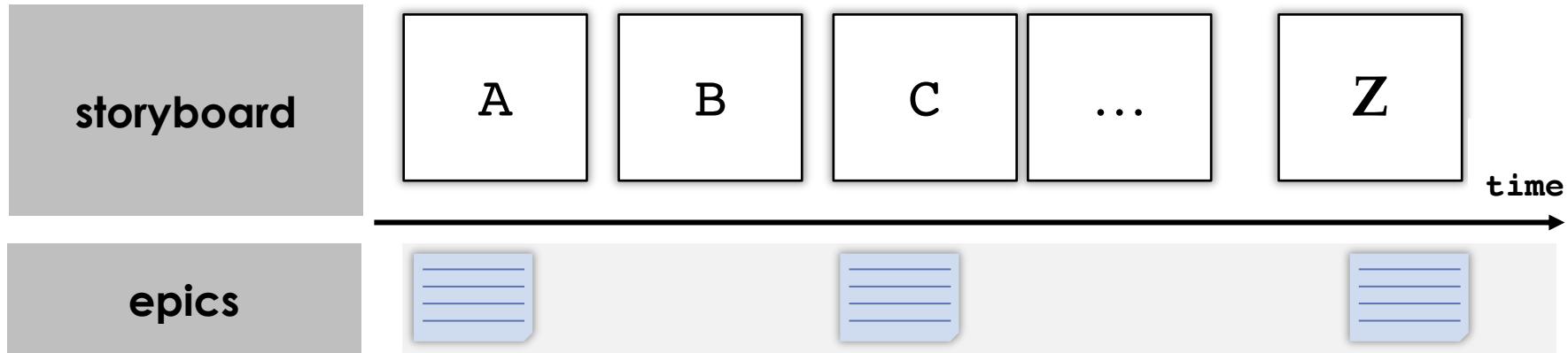
Manifesto: **The goal is to deliver working software** frequently, with a preference to the shorter timescale.

A)



B)

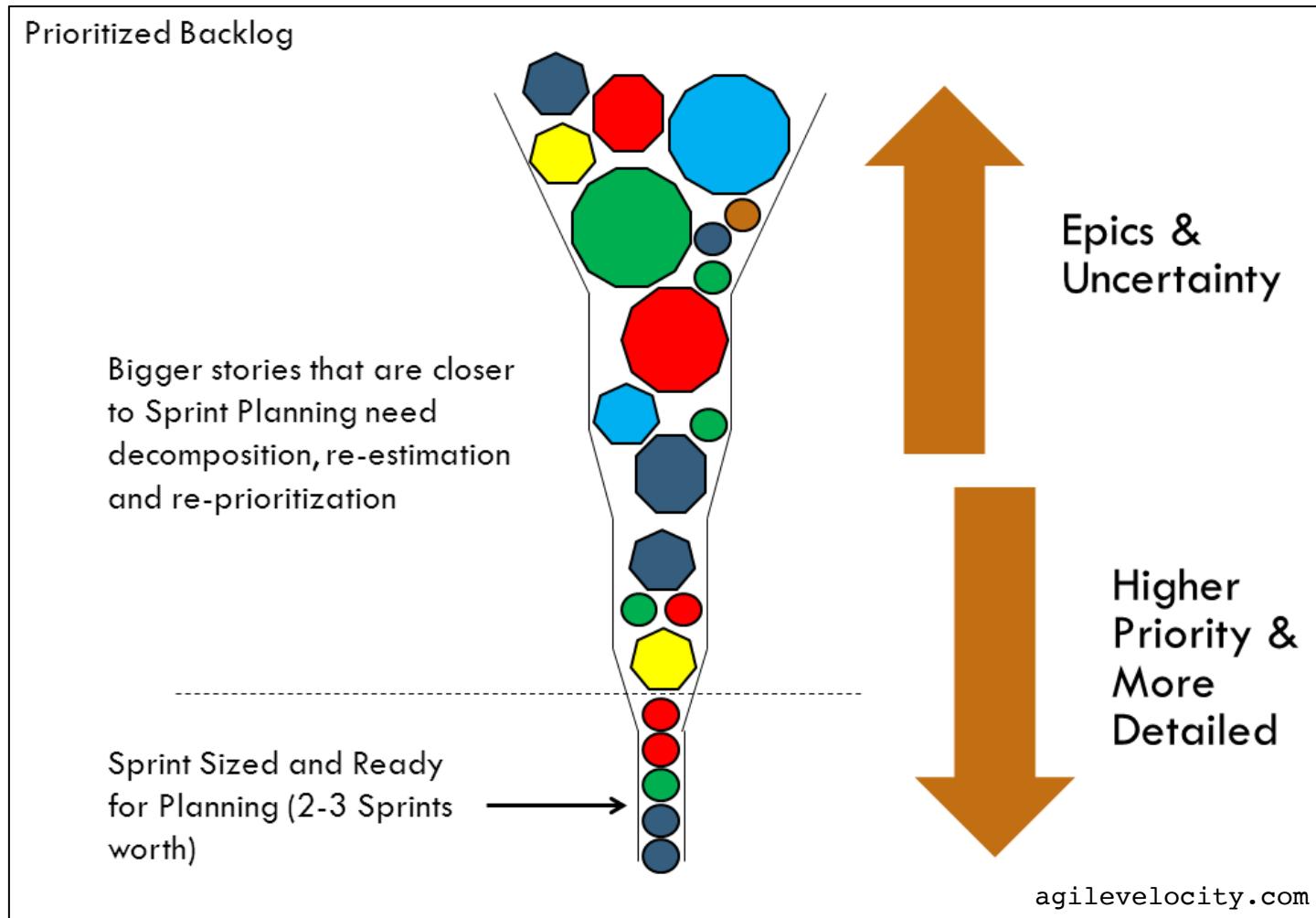
Creating Stories



Epic or Story

- Does it seem difficult to **estimate**?
- Does it seem **complex**?
- Is it **long**?
- Are there technical or business **unknowns** that are **unclear**?

Epics vs Stories



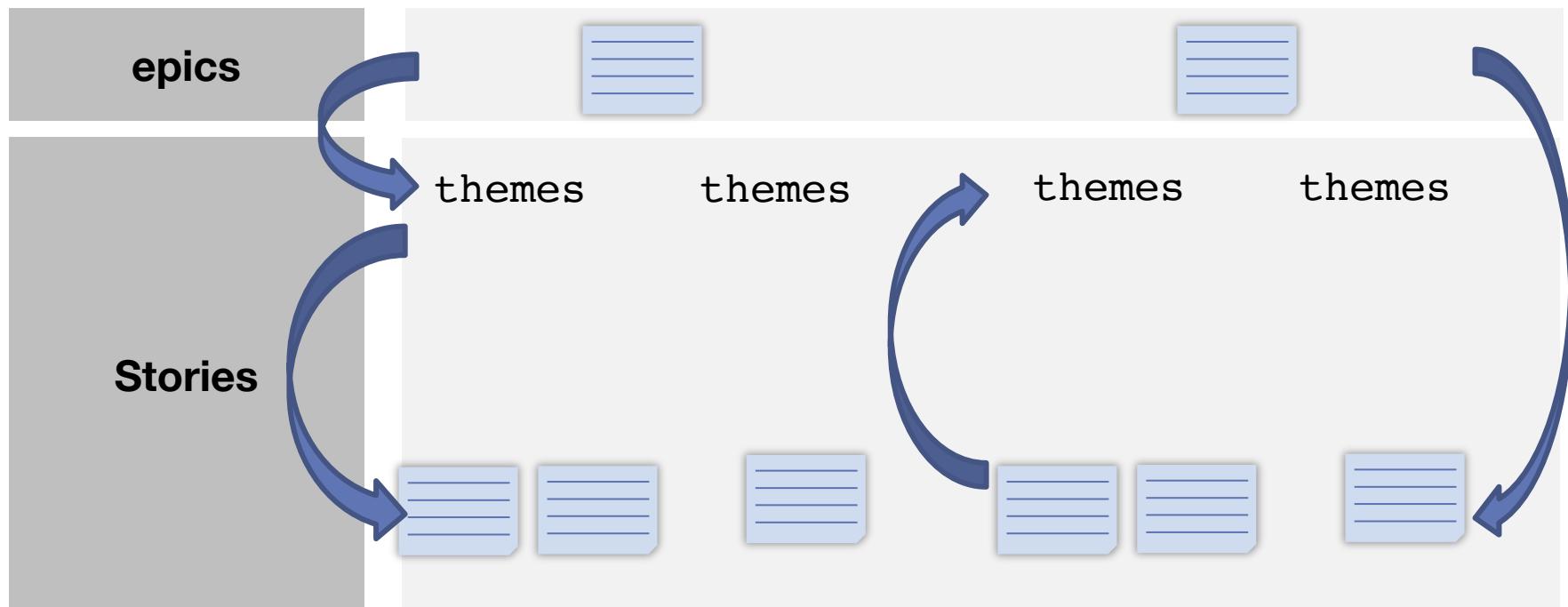
Creating Stories



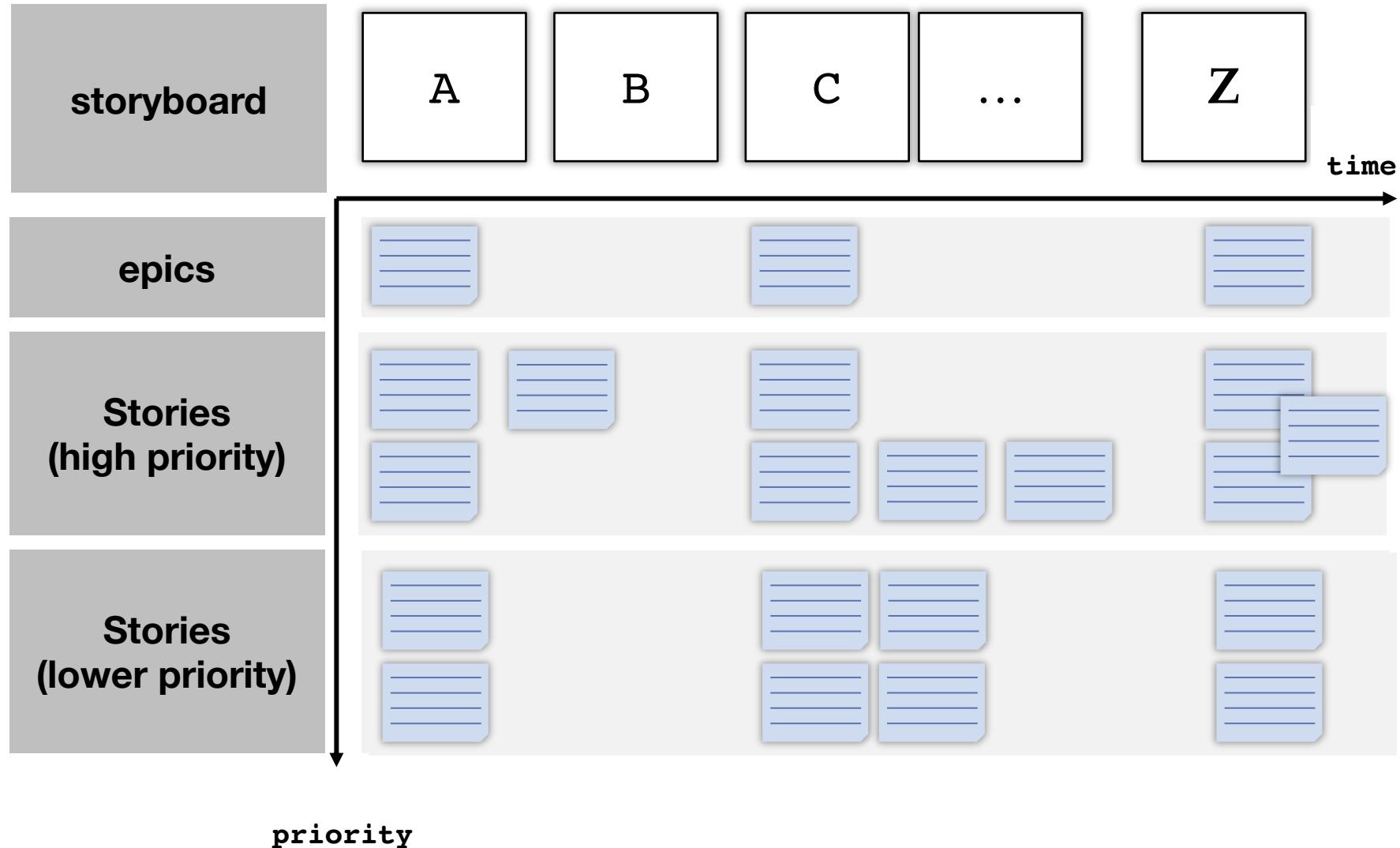
Write as many stories as you can

- Product Owner
- Team + Master
- Stakeholders

Creating Stories



Creating Stories



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Examples

```
mirror_mod = modifier_obj
# mirror object to mirror
mirror_mod.mirror_object
operation = "MIRROR_X":
mirror_mod.use_x = True
mirror_mod.use_y = False
mirror_mod.use_z = False
operation = "MIRROR_Y":
mirror_mod.use_x = False
mirror_mod.use_y = True
mirror_mod.use_z = False
operation = "MIRROR_Z":
mirror_mod.use_x = False
mirror_mod.use_y = False
mirror_mod.use_z = True
```

```
selection at the end -add
mirror_ob.select= 1
mirror_ob.select=1
bpy.context.scene.objects.active
("Selected" + str(modifier))
mirror_ob.select = 0
bpy.context.selected_objects
data.objects[one.name].select
```

```
int("please select exactly one object")
-- OPERATOR CLASSES -----
```

```
types.Operator):
    X mirror to the selected
    select.mirror_mirror_x"
```

Epics

For each line, say “YES or NO”.

⊕ EPICS

04	As a professor, I want a system to create quizzes for students so that I can evaluate their performance.
09	As a professor I want to login To Blackboard Portal, so that I can create and post an assessment
15	As a teacher, I want to have a website for giving quizzes so that I will be able to conduct different types of quizzes for the student.
33	As an instructor I want an application that allows me to create, manage, and grade quizzes for students so I can easily organize and distribute the examinations of my course.
39	As a developer, I want to Implement persistent data storage for the system. So that, the data once entered is persisted throughout and existing data can be modified and viewed.

Epics

For each line, say “YES or NO”.

EPICS

04	As a professor, I want a system to create quizzes for students so that I can evaluate their performance.
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Features

FEATURES

04	As a professor, I want options so that I can customize the quiz.
04	As a student, I want a user interface so that I can read the instructions about the quiz.
04	As a student, I want navigation links, so that I can navigate through the questions.
09	As a professor, I want to have a feature to navigate through the dashboard, so that I can shift between details and questions tab.
09	As a professor, I want a quiz tab, so that I can create and manage all the questions related to the quiz.
09	As a student, I want a quiz module, so that I can manage all the quiz related information.
15	As a teacher, I want a tab to describe the details of a question so that every question could be designed independently.
15	As a professor, I want a tab of quiz result so that I can see grades of all students
15	As a professor, I want my quiz free from cheating so that I can truly evaluate my students' performance
33	As an instructor, I want the ability to create a quiz with a custom title, instructions, and settings so that I am able to tailor the quiz to best assess my students.
33	As an instructor, I want the ability to write weighted multiple-choice quiz questions that contain two or more possible answers with at least one correct answer so that I am able to generate questions that best suit the material.
33	As a student, I want the ability to answer questions on a quiz and receive feedback based on the instructor's settings in the form of a grade and/or correct answers so that the instructor and myself are able to evaluate my understanding of the course material.

Features

FEATURES

04	As a professor, I want options so that I can customize the quiz.	76%	10
04	As a student, I want a user interface so that I can read the instructions about the quiz.	61%	8
04	As a student, I want navigation links, so that I can navigate through the questions.	30%	4
09	As a professor, I want to have a feature to navigate through the dashboard so that I can shift between details and questions tab.	30%	4
09	As a professor, I want a quiz tab, so that I can create and manage all the questions related to the quiz.	84%	11
09	As a student, I want a quiz module, so that I can manage all the quiz related information.	53%	7
15	As a teacher, I want a tab to describe the details of a question so that every question could be designed independently.	46%	6
15	As a professor, I want a tab of quiz result so that I can see grades of all students	61%	8
15	As a professor, I want my quiz free from cheating so that I can truly evaluate my students' performance	53%	7
33	As an instructor, I want the ability to create a quiz with a custom title, instructions, and settings so that I am able to tailor the quiz to best assess my students.	38%	5
33	As an instructor, I want the ability to write weighted multiple-choice quiz questions that contain two or more possible answers with at least one correct answer so that I am able to generate questions that best suit the material.	8%	1
33	As a student, I want the ability to answer questions on a quiz and receive feedback based on the instructor's settings in the form of a grade and/or correct answers so that the instructor and myself are able to evaluate my understanding of the course material.	8%	1

Stories

1	04	As a student, I want a screen with all the instructions for the quiz so that I can read the details about the quiz.
2	04	As a professor, I want a checkbox so that I can specify if the quiz is timed or not.
3	04	As a professor, I want an edit button so that I can update the question and the answers.
4	09	As a professor, I want to navigate from one tab to another on the dashboard, so that I can easily switch to other pages, if needed.
5	09	As a professor, I want a <u>TextBox</u> field so that I can give a name to the quiz and specify further instructions.
6	09	As a professor, I want a radio button so that I can select the shuffle answers option.
7	15	As a student, I want to view the title of the quiz so that I can differentiate between the quizzes.
8	15	As a student, I should be able to view submit option, so that I can submit the quiz and quit from it.
9	15	As a professor, I want to configure answers for the questions so that I can use it as a metric while grading.
10	33	As an instructor, I want to be able to specify instructions for the quiz so that the students understand my expectations when they take the quiz.
11	33	As an instructor, I want to be able to create multiple choice and multiple answer questions for the quiz so that I can assess my students' understanding of the material easily.
12	33	As a student, I want the quiz to show me which answer(s) I've selected so that I know that the quiz has recorded my answer correctly.

Stories | Independent

1	04	As a student, I want a screen with all the instructions for the quiz so that I can read the details about the quiz.	INVEST
2	04	As a professor, I want a checkbox so that I can specify if the quiz is timed or not.	INVEST
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4	09	As a professor, I want to navigate from one tab to another on the dashboard, so that I can easily switch to other pages, if needed.	INVEST
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6	09	As a professor, I want a radio button so that I can select the shuffle answers option.	INVEST
7	15	As a student, I want to view the title of the quiz so that I can differentiate between the quizzes.	INVEST
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9	15	As a professor, I want to configure answers for the questions so that I can use it as a metric while grading.	INVEST
10	33	As an instructor, I want to be able to specify instructions for the quiz so that the students understand my expectations when they take the quiz.	INVEST
11	33	As an instructor, I want to be able to create multiple choice and multiple answer questions for the quiz so that I can assess my students' understanding of the material easily.	INVEST
12	33	As a student, I want the quiz to show me which answer(s) I've selected so that I know that the quiz has recorded my answer correctly.	INVEST

INVEST in good stories

- **I**ndependent – loosely coupled with one another
- **N**egotiable – Stories are what and why , not how (99%).
- **V**aluable – for the customer!
- **E**stimatable – Effort/Cost of design, build, and test.
- **S**mall (sized appropriately)
- **T**estable – pass or fail

Common Errors

*types.Operator):
X mirror to the selected
select.mirror_mirror_x"*

Common Errors

- “So that” misplaced

*As a student, I need to **save** my quiz **so that** later I can **review, print, or email** it for other uses.*

Common Errors

- Huge Story

*As a student, I need to **review, print, and email** my quizzes so that I can request a revision or study.*

Common Errors

- **Waterfall (analysis, design, implementation paradigm)**

As a developer, I want to create a server socket so that the client can connect to the server.

- **No Value (Customer Value)**

As a tester, I want to have the server finished so that when the client is completed, I can test it.

Common Errors

- **Missing acceptance/verification criteria**

As a student, I want to see each question in my quiz displayed clearly so that I can quickly identify my errors.

Reference

- Essential Scrum - Chapter 5 and 6.

What about your PBI from Project 2?

Test Yourselves

1. As a user I want a window to contain my application.

Tasks:

- Create a frame with two panels.

2. As a user I need a panel containing various shapes as options to choose

Tasks:

- Create a vertical panel containing all shapes the user needed.

3. As a user I should be able to choose the shape of my wish from the panel.

Tasks:

- Implement mouse listener functions on the shapes available in the panel.

4. As a user I need a Canvas so that i can draw the shapes I chose from the panel.

Tasks:

- Creating a canvas panel to draw shapes.
- Implement mouse listener function to canvas to draw shapes.

5. As a user I should be able to move the shapes previously present in canvas.

Tasks:

- Drag and drop operation to the shapes present on canvas.

Test Yourselves

1. As a User, I want the frame to have 2 panels so as to have 2 different functionalities
2. As a user, I want the left panel to have 3 objects, a circle, a triangle, and a square so as to click on it
3. As a user, I want the object when clicked on the left panel to appear on the right panel so as to be able to work with it
4. As a user, I want the object on the right panel to be able to move when the mouse is clicked on it so as to move it around
drag

Test Yourselves

Product Backlog

Assignment Two

Task	Points
Main Window	10
Left Panel (contains the shapes)	10
Right Panel (creates shape on Click)	10
Draggable Listeners	10
Select Shape Listeners (Left Panel)	10
Shapes - Triangle, Circle, Square	20
Integration	10
Add drag listeners to right panel shapes	10

```
    mirror_mod = modifier_obj
    mirror_mod.mirror_object = mirror_object
    if operation == "MIRROR_X":
        mirror_mod.use_x = True
        mirror_mod.use_y = False
        mirror_mod.use_z = False
    if operation == "MIRROR_Y":
        mirror_mod.use_x = False
        mirror_mod.use_y = True
        mirror_mod.use_z = False
    if operation == "MIRROR_Z":
        mirror_mod.use_x = False
        mirror_mod.use_y = False
        mirror_mod.use_z = True
```

```
selection at the end -add
```

```
    ob.select= 1
    mirror_ob.select=1
    bpy.context.scene.objects.active = mirror_ob
    ("Selected" + str(modifier_index))
```

SER516 – Software Agility

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OPERATOR Spring 2020

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