



What is a project?



**Project:** Any undertaking, carried out individually or collaboratively and possibly involving research or design, that is carefully planned (usually by a project team) to achieve a particular aim.



How do we carefully plan a project?

# **Project Management**

The practice of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria at the specified time.

The primary challenge of project management is to achieve all of the project goals within the given constraints.





What is the definition of agile?

### agile [aj-uhl, -ahyl]

01

Quick and well-coordinated in movement; lithe: an agile leap.

02

Active; lively: an agile person.



Marked by an ability to think quickly; mentally acute or aware: She's 95 and still very agile.

dictionary.com 7



What is agile software development?

# **Agile Software Development**

Agile software development is an iterative approach to software development.



wikipedia.org

# **Agile Software Development**

01

#### **Deliver Value**

Teams deliver value to their customers faster by working incrementally rather than working towards a big launch.



#### **Respond to Change**

Teams improve and respond to change by continuously evaluating project plans, requirements and user needs.

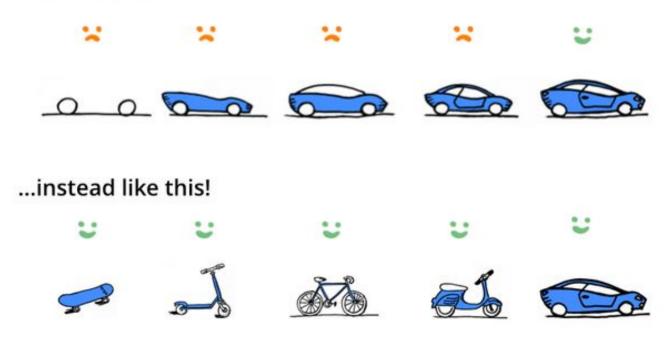


What is iterative development?

## **Iterative and Incremental Development**

Working software is the primary measure of progress

Not like this...





#### Minimum Viable Product

A product with just enough features to satisfy early customers and provide feedback for future product development

#### **Minimum Viable Product:**



#### **Product Vision:**



wikipedia.org



How do we determine our MVP?

# **Determining a Minimum Viable Product**

#### Ask Questions!



Who is your audience?



What is the problem that the product will address?

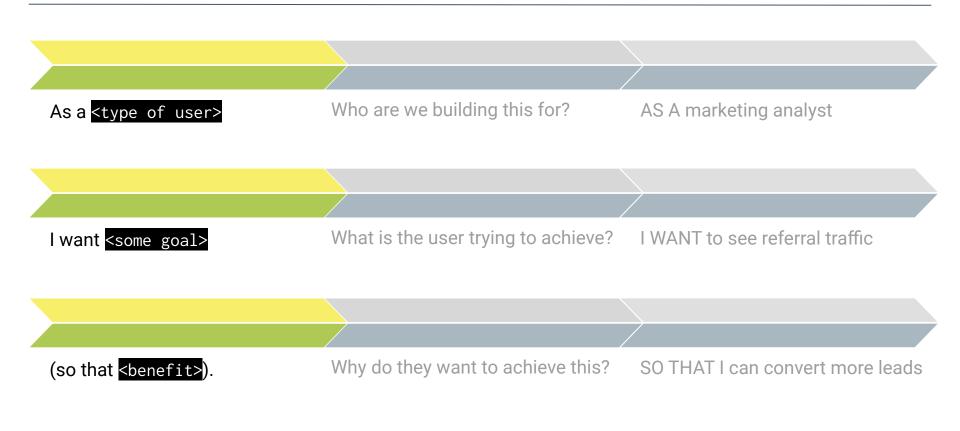


How does the product solve that problem?

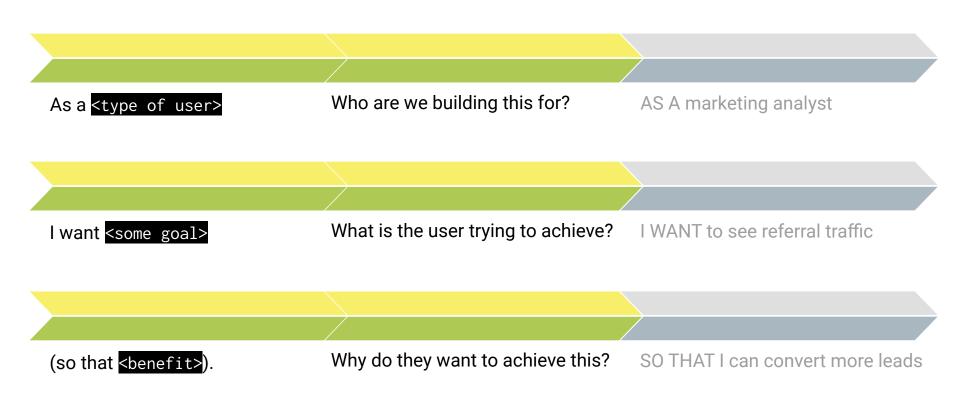


What is a user story?

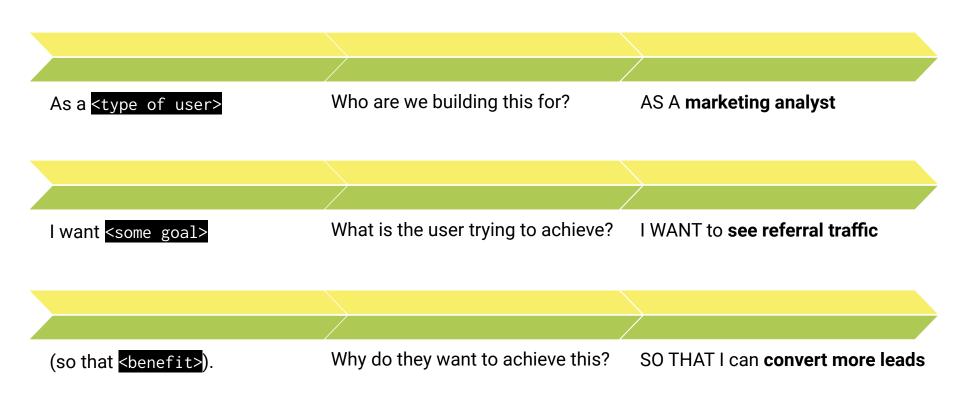
#### **User stories**



#### **User stories**



#### **User stories**





What is acceptance criteria?

## **Acceptance Criteria**

GIVEN I am an authenticated user GIVEN some precondition WHEN I request a range of referral traffic WHEN I do some action THEN a chart is generated THEN I expect some result

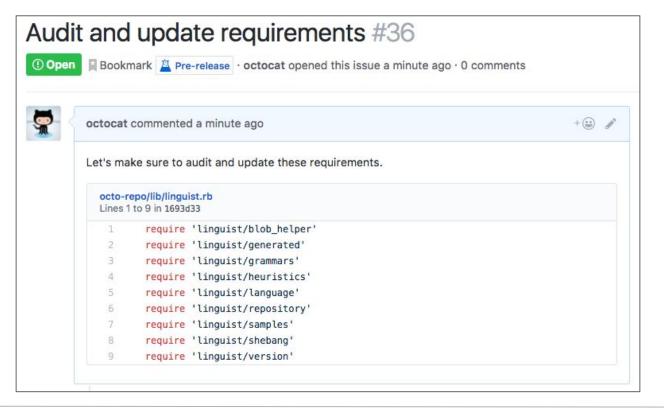
## **Acceptance Criteria**

GIVEN I am an authenticated user GIVEN some precondition WHEN I request a range of referral traffic WHEN I do some action THEN a chart is generated THEN I expect some result



#### Issues

Use issues to track ideas, enhancements, tasks, or bugs for work on GitHub.



help.qithub.com 25



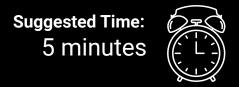
Instructor Demonstration Issues



# **Student Activity:**

**User Stories** 

User stories help provide context for a development team and their efforts moving forward



# **Student Activity:** User Stories

In a markdown file or on a pen and piece of paper, create a user story for a mock persona using one of the following prompts:



A web application that keeps track of a company's payroll.

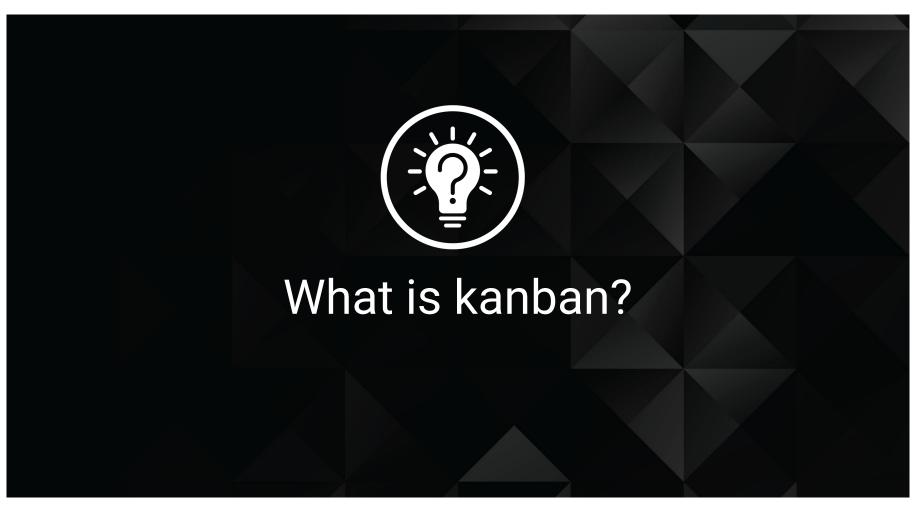


A mobile application that finds nearby restaurants.



A reminder app that keeps track of important tasks.





#### Kanban

Kanban is a project management tool that visualizes work through cards representing User Stories or Issues.

In their simplest form, Kanban boards are broken into three columns:

To Do	In Progress	Done

Cards begin in the To Do column and are moved from left to right as work is started and completed.



Instructor Demonstration Kanban



# **Student Activity:**

# GitHub Projects

Kanban boards help developers visualize work and keep track of the status of issues.



# Student Activity: GitHub Projects



Navigate to Github.com and create a repository.

02

Use the "Projects" tab to create a new project for your repository.

(03)

Create a card called "Create landing page" and move it from the "To do" column to "In progress".

(04)

Create a GitHub Issue called "Fix broken button" and attach it to your new project.





# **Stand-Up Meetings**



# **Project Timeline**

Day 1	Day 2
<ul> <li>Divide into groups.</li> <li>Write a user story.</li> <li>Create a wireframe.</li> <li>Create a user flow diagram.</li> <li>Submit project proposal for approval.</li> </ul>	Dive in to project development.
Day 3	Day 4
Continue project development.	Continue project development.
Day 5	Day 6
<ul><li>Continue project development.</li><li>Prepare for presentations.</li></ul>	Give presentations!

### **Get Professional**

Projects are portfolio pieces

Use Project Week as an opportunity to push yourself and prove what you know.

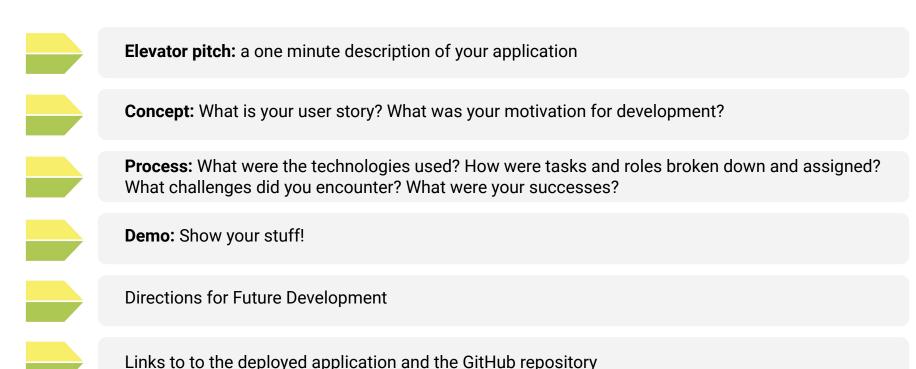


### **Project Requirements**

Must use at least two server-side APIs 02 Must use a CSS framework other than Bootstrap 03 Must use client-side storage to store persistent data 04 Must have a polished, mobile-first UI Must meet good quality coding standards (indentation, scoping, naming, etc.) 06 Does NOT use alerts, confirms, or prompts (look into *modals*). Must be deployed to GitHub Pages 08 Must be interactive (i.e. accept and respond to user input)

# **Presentation Requirements**

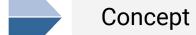
You will be responsible for preparing a formal, 10-minute presentation that covers the following:

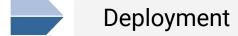


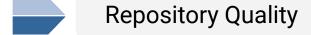
# **Project Metrics**

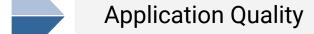
Your project will be evaluated on the following:



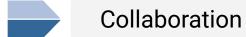












## **API Suggestions**

Stick to APIs that do all of the following:



Allow cross-origin resource sharing (CORS)



Require simple or no authentication



Return a JSON response



Are well documented



For a list of free APIs see: <a href="mailto:github.com/public-apis/public-api

# **Today's Project Checklist**

Create a short (1 page) proposal that contains the following:



