1. Choose a project and be able to explain it to others

Get it approved by the instructor and assistant

**Name**

2. Sketch mockups (screen layouts) on paper, the board, or the computer.

Get it approved by the instructor and assistant

3. Create a list of “user stories” each on a separate sticky note

**When the user presses the space bar, the hero jumps**.

When the user does x, the program does y

Get approval

4. Design your project

a. Look for classes. Hint: look for *nouns* in the user stories.

**class** **Hero:**

Write each on an index card

b. What does each class need to know to do its job?

Will become instance variables (**self.color, self.location**)

List on the index cards

c. What does each class need to do?

Look for *verbs* within the user stories

**class Hero:**

**def jump():**

**# Code here**

**…**

**def draw()**

**# Code here**

**…**

List on the index cards, get approved

5. Write code for each user story.

What order to use?

So you can write as little code as possible before testing it.

Test as you go. Write a little, test and little!

**Draw before move, move before jump, move with constant speed before variable speed, move before collisions**

Take turns “driving”

You are done when you run out of project time. ☺

Note: In teams of 3-4, sometimes it makes sense to have part of the team exploring new features in a separate mini-program, and then tying it in with the program.

It takes time and effort to pull in new features.   
Talk to each other!