**App Inventor 2 (AI2) Workshop**

**45 min - 1 hour**

**Uses:** App Inventor 2 is used to create phone applications with code in the form of draggable blocks

**Goal:** To create an app that uses a canvas and button component to animate an image sprite

**Getting Started**

1. Type in App Inventor Website URL into google

* Website URL: ai2.appinventor.mit.edu

1. Log in to your account
2. Near the top left corner, click “Start New Project” and then type in “HackBIAppInventorWorkshop”
3. In the top left corner click “Connect” > “Emulator”

**Topics**

* How to change the visual aspect of an app by dragging and dropping components from the palette in the Designer
* How to program an app using blocks from the blocks editor
* How to initialize and set the value of a variable
* How to manipulate image sprites in a canvas using event listeners
* How to create and use a procedure to make code easier to understand
* If there’s time (How to use tinyDB to store a value and how to display that value using a label component)

**Object of the App**

* The main goal of the app is to click on the ball as many times as possible without clicking on the bomb.

**Challenges**

1. Create a Pause Game button that stops the bomb and ball from moving when it is clicked on
2. Create a “bombExplode” procedure that causes an explosion to appear on screen when the bomb is clicked on.
3. If the user clicks on the ball 5 times make the sprites move to (0,0) and disable the clock
4. Only allow the user to click on the ball and bomb while the clock is enabled
5. Use the App Inventor book that is linked to in the resources section of this document to learn how to use tinyDB
   1. Use tinyDB to store the number of clicks the user has had on a ball when the game ends
   2. Display that value on a label

**Helpful Resources to Continue Learning**

* <http://www.appinventor.org/book2> *App Inventor 2’s free online book that walks you through exercises*