Tanks-Iterative Enhancement Plan (IEP)

Person 1

- 1. Use constructor (__init__) method to set parameters
- 2. A tank appears at a chosen position on the screen when the draw() method is first called
- 3. The tank moves 5 pixels up/down/left/right when one of the arrow keys are pressed
 - a. The tank does not move past the screen edges and the obstacles
- 4. When the space bar is pressed, the tank fires a bullet horizontally from the
- 5. If the arrow keys are pressed, tank 1 moves. If the WASD are pressed, tank 2 moves
- 6. If a tank is hit by a bullet, it explodes (Work with person 2)
- 7. If tank hits obstacle or another tank, it cannot move in that direction

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Person 2

- 1. The bullet and bullets classes have instance variables and method stubs as described by the UML.
- 2. A test bullet is drawn on the screen (as a horizontal line) at a random point.
- 3. The test bullet moves horizontal at its speed.
- 4. The bullet is launched at an angle determined by the direction of the tank. (Work with Person 1) (Work with Person 1)
 - a. Bullets appear at the location of the tank's shooter
 - b. Bullets shoot out of the left/right if the tank is oriented horizontally, same vertically
 - c. If tank is shooting towards one of its 4 corners, the bullet is constructed at that corner and has both an x and y component of speed
- 5. If bullets collide with an obstacle, remove the bullet (Work with Person 3)
- 6. Anticipated: If bullets collide with an obstacle, the bullets will bounce if they have bounced less than twice. Otherwise, they will disappear.

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Person 3

- 0. A blank screen appears. The code just include Controller, Game, Main, View.
- 1. A blank screen appears. Construct the background, captions, and adjust screen size if needed. Constructing new file with the class of Obstacle
- 2. As usual, set up the construct method __init__ and constructs instance variables and parameters.
- 3. Draw obstacle from the image you can get it anywhere and put it in media file with appropriate width and height. Then set the position for the obstacle with x and y but not at the side of the field (should near the middle of the field)
- 4. Constructing a new class called Obstacles that will generate more obstacles-> about 4-6 obstacles will be generated.
- 5. Work with Person 2 to deal with the bouncing part when the bullets encounter the obstacles. The bullet will be bounced at an angle 90 degrees.