

# ZOMBIE APACOLYPSE!!!

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Walking undead hordes roam the earth, or the greater metro area at least, and you are stuck in CBT at NHCC with 25 healthy, well armed due to conceal and carry laws, well fed and motivated students. You need to survive 10 days in CBT. Luckily you have enough rations and implements of destruction to hold off. Occasionally the lurching undead will find a way into CBT and you need to hold them off.

## Here are the minimum requirements for the project: this will give you 80% if everything is correct

- At least one person needs to survive 10 nights to win the game if everyone dies the simulation is immediately ended.
- Each person has a gun and 150 rounds of ammo
- There is enough food for 8 people to survive for 10 days – uh oh!
- Every night a random number of flesh eaters between 10 and 50 will get in to CBT
- All zombies must be destroyed every night (Yikes!)
  - A zombie can be killed with a gun or a blunt object
  - A gun has a 1 in 5 chance to hit
    - If gun hits it has a 1 in 3 chance of killing instantly
    - A gun must hit twice to kill if the first shot is not an instant kill
    - A miss means that the shooter has a 1 in 2 chance of being killed by the zombie!
  - A blunt object has a 1 in 3 chance of hitting
    - If a blunt object hits it has a 1 in 10 chance of killing instantly
    - A blunt object must hit 3 times to kill if there are no instant kill strikes
    - A miss means that the person wielding the blunt object is dead! – you are in hand to hand combat, if you miss we assume that you are overwhelmed.
- People will use guns if they have ammo and they will use blunt objects when the ammo is gone.

## To earn 100% do one of the following

- Balance the game so that a person has a chance of surviving!
- Provide a mechanism for people to leave CBT to get more resources for longer survival.
- Make it graphical and interactive

## Required programming constructs

- Scanner
- println()
- If/else
- Class for person, class for apocalypse simulator and a test class

- It is important to put data and methods into the appropriate classes. Where do you think the fight method will go? Where do you think that the ammo and food should go? If it only belongs to a person it goes in the person class, if it belongs to the world it goes in the world class.
- Counter variables
- Constants
- Sentinel controlled loops
- Count controlled loops
- Methods with parameters
- Constructor
- Provide a toString() method
- I need to see clear descriptive output so that we know what is going on at each step of the program
- Comments that clearly explain what is going on with the code – these are not necessarily good programming comments but I need to see your thought process described in the comments
- I need to see well structured code, instance data at the top of the code, constructors next, and methods after
- There is no one solution to this project. You need to come up with the most elegant solution

## Turn in the work

- When you create your Java Project in Eclipse, you should name it as follows:  
*yourName\_2001Spring\_Zombie*. You can name your packages and Java files whatever you want.