

John Wick



Implement the story of John Wick vs the Continental.

First we implement the Abstract class Assassin having a protected field power (double) and a purely virtual method called execute(Assassin& target, BountyQueue&).

An assassin can either be a Killer or an Organisation.

The killer has a name and implements the execute method by whacking the target if their power is higher than the target's. If a killer gets a bounty placed on the target, he will be added to the bounty queue. The power of the killer increases with 50 xp with every successful new hit.

An organisation (it contains a vector of polymorphic entities of type Assassin) places the bounty on a given assassin as follows:

It iterates through the vector containing its members and generates a random number for each member. If the number is higher than 0.5 the organisation hires the Assassin to whack the target.

Simulate a scenario in which a Killer named John Wick (or if you prefer Baba Yaga) has initial power over 9000 and is so O.P. that an entire organisation called the Continental that has other killers and organisation on their payroll tries to eliminate him but can't. The organisation hires killers from its ranks and places them in the queue, then John Wick takes them one on one, whacking them all.

Test that the simulation works as intended using cassert.