

## CS Homework #22

Deadline: March 27th, 9:00 pm.

- Save your code as `lastname_homework22.py` and submit on Google Classroom.
- Please, run your code before submitting.
- If you get an error, try to fix it before submitting your homework.
- If you get help from anyone, please, make sure that you actually understand the solution.

We continue working with the class code (as always, the classwork is posted on Google Classroom if you need to download it).

### Task 1

Expand the class code by creating two types of swords: a magic sword and a soldier sword (that is, each kind of a sword should be a new SUBCLASS). Each magic sword should have a unique (read: an instance attribute) 'intellect requirement' (an integer). The intellect requirement should be a RANDOM number generated when an object is created (that is, inside `def __init__`).

Similar to the above, each soldier sword should have a unique 'strength requirement' attribute. Once again, the attribute should be a random value generated at the time of the object creation.

Finally, magic swords have an elemental affinity, which is a string value: "fire", "water", or "ice" (hint: this should also be an instance attribute).

### Task 2

All magic swords have a `base_attack = 3` (hint: this is a class attribute). All soldier swords have the same `base_attack` as a regular sword (hint: this is already specified in the parent class).

### Task 3

Update the `display` method for both swords to display information about the intellect/strength requirements and the elemental affinity (for magic swords only).

### Task 4

Assume that a magic sword is two times more expensive than a regular sword. For example, a regular sword that is "rare" and has `condition = 80` is worth  $80 * 2 = 160$ . A magic sword that is also "rare" and has `80 condition` is worth  $80 * 2 * 2 = 320$ . How do you incorporate this into your code? (Note: there are many different approaches to do this and I will leave it up to you to decide which approach to adopt).

### Task 5

Create an inventory, in which there are three different swords. Display their information. Assume that their `condition` decreased by 80%. Update the swords' values. Display their information again to confirm that their values decreased.