COMPETITIVE CODING HAS NEVER BEEN SO EPIC

CODE
CODE

AI LEAGUE

Beginners Guide

What we're going to learn!

- How to read hints
- Basic syntax
- Objects, methods and arguments
- How to participate in the AI League
- Practice Time!!

Game Strategy

What Strategy shall we use today?

- 🏆 **Modify starter code.**
- 🏆 **Focus on your hero and what it can do**

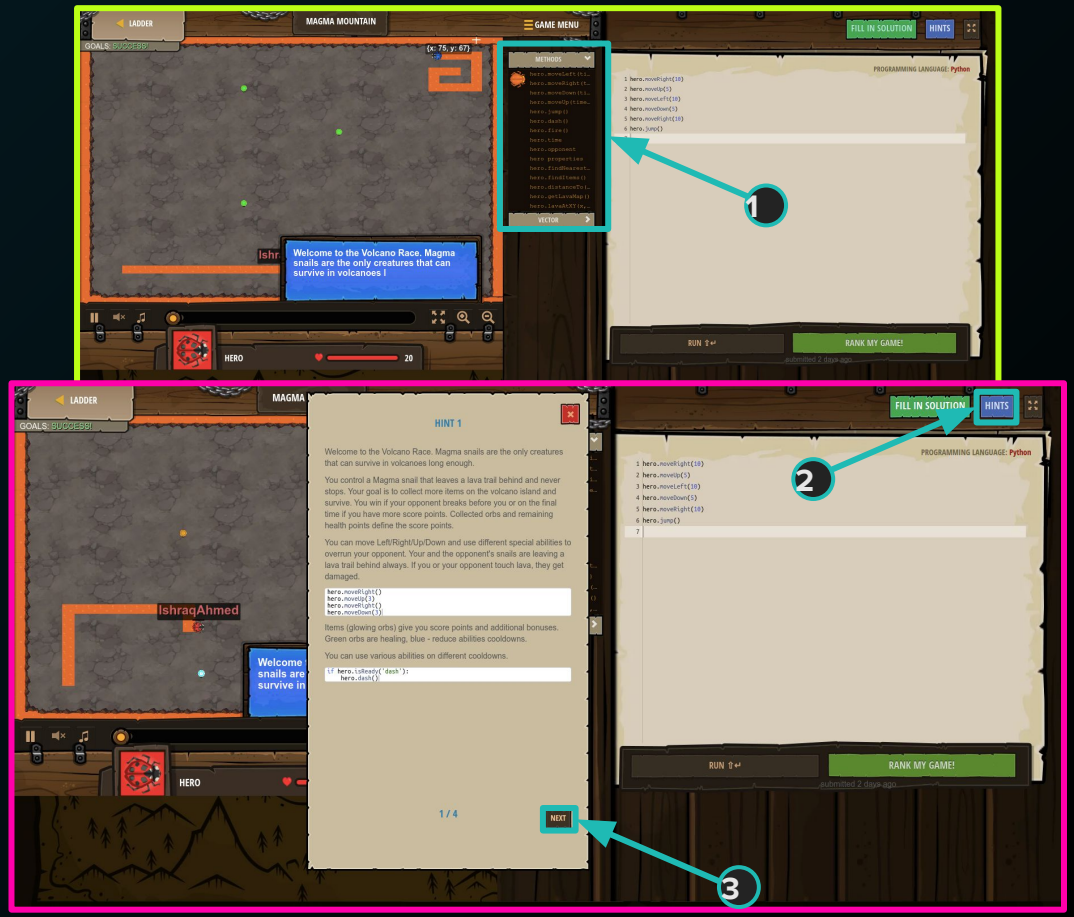
For example:

- 🎮 **What minions do you want to spawn?**
- 🎮 **Where should your hero move?**
- 🎮 **What spells do you want to cast?**
- 🎮 **Is there anything you can build?**

Hints

Hints in AI League tell you about all the small details you'll need to control your hero and win!!

1. You can see the **Methods** that you can use in your code in the middle part of your screen.
2. Make sure you read the **Hints** carefully.
3. Click on next to go to the **Next** hint.



Why should I use hints?

- Hints give you a kick start in the game.
- Hints help you know what code you can type and what abilities you can use.
- Hints help you advance over other players.

What coding concepts can we use?

- Basic Syntax
- Objects, Methods and Arguments

Basic Syntax

Concept Video: Basic Syntax

Understanding Syntax

Python Syntax:

```
# Comments will include
# instructions and hints!
```

object function

```
hero.moveRight()
```

method argument

JavaScript Syntax:

```
// Comments will include
// instructions and hints!
```

object function

```
hero.moveRight();
```

Don't forget the semicolon!

method argument

Follow along with what the computer is reading in this code statement:

object: The character selected as `hero`...

method: will `move` in the `Right` direction…

argument: for a distance of `( )` number of steps, with a default of **one** step.

Summary of Key Terms (1/2)

Algorithms are a sequence of instructions to solve a problem or complete a task or steps(sequences) you take to reach to your goal..

Programs are written in **code** so computers can understand them.

Syntax describes the rules of a computer language that govern how statements are written (e.g., structure, capitalization, and punctuation).

Planning and **debugging** your code are important steps in problem-solving that expert programmers use every day.

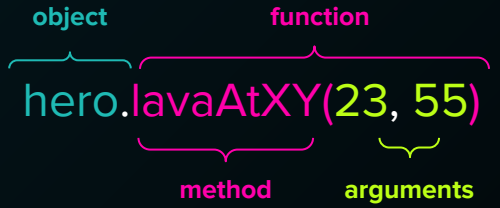
Comments begin with a special character, which tells the computer to skip the rest of this line and go to the next one.

```
#  Comment in Python
// Comment in JavaScript
```

Summary of Key Terms [2/2]

The code **statements** you will use to maneuver your hero have an ***object*** and ***function***:

Example:



- **Object:** Represents a character or asset that can perform an action.
- **Method:** Part of a predefined ***function*** that represents an action performed by an ***object***.
- **Argument:** Part of a predefined function that represents extra information passed into the ***method*** to specify how the action is performed.

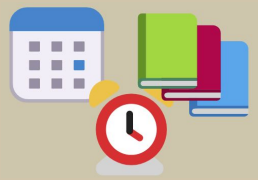
Data and Arguments

Different Kinds of Data

Not all information is expressed the same way. Computers handle specific types of information in different ways. Some information can represent a **quantity** and some can represent **text**..

NUMBERS

Which of your examples could be expressed as a number?



```
hero.doHomework(     )
hero.doHomework(     )
```

STRINGS

Which of your examples could be expressed as a word or a string of text?

```
hero.doHomework(          )
hero.doHomework(          )
```

Summary of Key Terms

- **Argument:** Part of a predefined function that represents extra information passed into the ***method*** that specifies how the action is performed.

Example:

object

```
hero.lavaAtXY(23, 55)
```

method

arguments

Summary of Key Terms

- **Integers:** Data that represents a whole number with no decimal point or fraction.

Example:

object

```
hero.lavaAtXY(23, 55)
```

method

integer arguments

Summary of Key Terms

- **Strings:** A sequence of unicode data that represents text, like a name or a sentence. Strings must be enclosed inside quotation marks, where case, spelling, and symbols must be matched exactly.

Example:

object

```
hero.isReady("jump")
```

method

string arguments

Summary of Key Terms

- **Properties:** Data about or belonging to an object (i.e., hero, ogre, armor, gem, etc.)

Example:

object

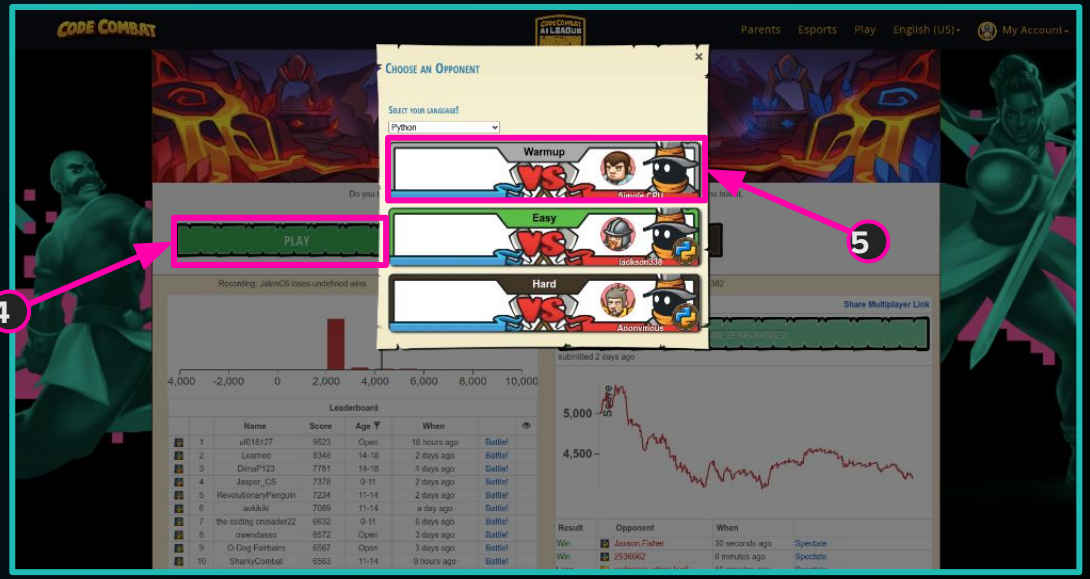
hero.**speed**

property

Practice Time!

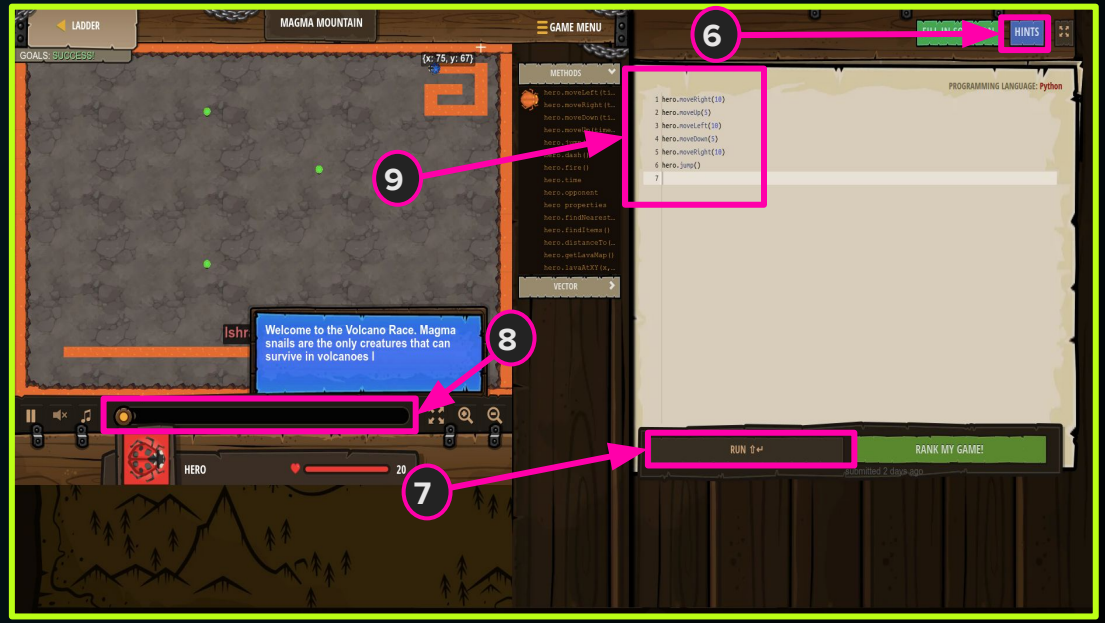
Getting Started

1. Log in to your CodeCombat account
2. Go to https://codecombat.com/league
3. Click Play on the current Arena
4. Click the green Play button
5. Play against the simple CPU



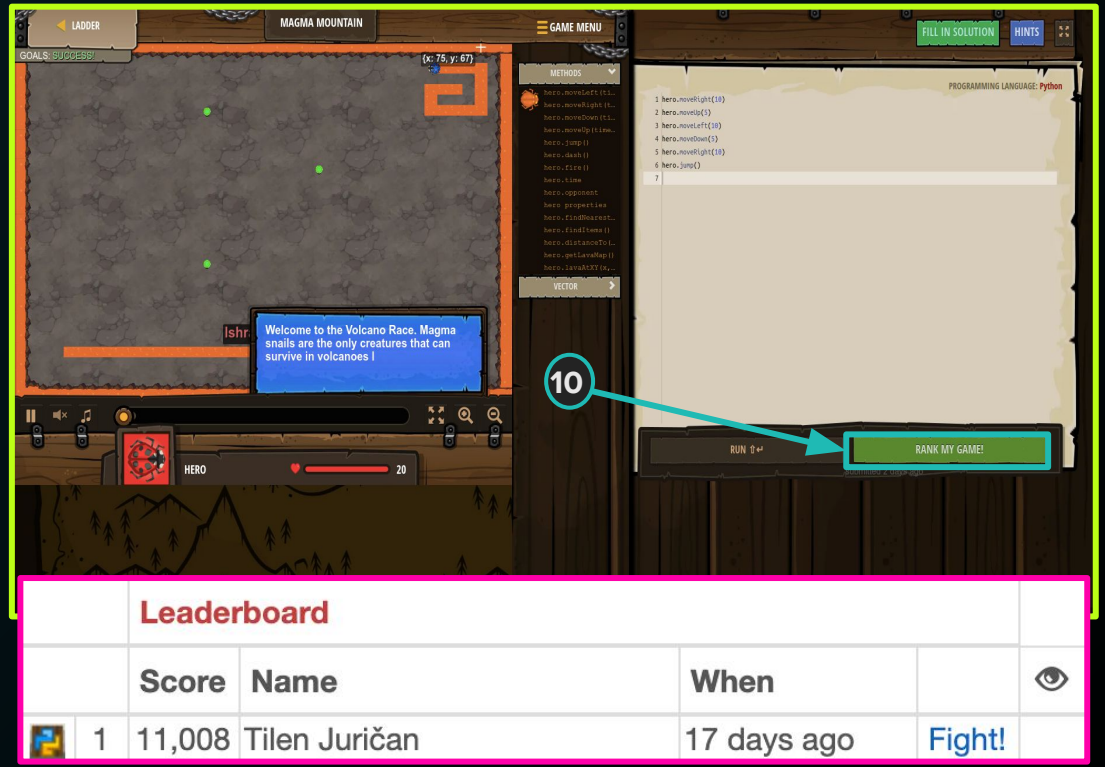
Submitting your code!!

6. Carefully read the hints.
7. Run the starter code.
8. Observe: you can rewind the scrubber and notice what went right or wrong.
9. Iterate: modify the code to win against the CPU.



Submitting your code!!

10. Once you win against the CPU, click **“Rank My Game”** to submit the latest version of your code to the ladder and can view their results on the ladder page against the code of others.



Any Question ?

Quote of the day!

“

Don't practice until you get it right.
Practice until you can't get it wrong.

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