



The Task

Battleship is a two-player strategy game played on ruled grids on which each player's fleet of ships are marked. The location of the fleets is concealed from the other player. Players alternate turns calling "shots" at the other player's ships with the objective of destroying the opposing player's fleet (Source: [Wikipedia](#)). [Here is an easy](#) walkthrough of the game.

In this challenge, you will be developing a Python code for the classic board game of Battleship to win multiple prizes ranging from Rs 1,000 to Rs 2,500.

Sounds daunting? New to programming? Afraid of writing codes? No worries: we got you covered. Signup with Codecademy for a 90-day [free subscription](#) for their Pro version from your IITGN email ID. Codecademy is an elegant platform to learn programming from ground zero, and once you are familiar with nuances of programming, you are all set to design your first game. In addition to prizes for the game, students who take the Python tutorials are eligible to win special lottery prizes.

The Plot

In this challenge, you will create a 10x10 board with the following 5 ships:

- Aircraft Carrier (size 5)
- Battleship (size 4)
- Submarine (size 3)
- Destroyer (size 3)
- Patrol boat (size 2)

The game will proceed as follows:

- Players first position their own boats on the grid such that no boats overlap. Boats can be positioned vertically or horizontally in any position as long as the entire boat fits on the grid without overlapping another boat.
- Once the boats are positioned, the game play begins with each player alternately choosing a spot on their opponent's board to attack. Players are able to see both their own board and their opponent's board, both of which show the history of attacks by the two players. However, players can only see the positions of boats on the own board. When they see their opponent's board, a player can only see the history of where they have attacked, and if those shots resulted in a hit or miss.
- Players choose spots to attack with the goal of "sinking" a ship. A ship is considered sunk when all of its spots on the grid have been attacked. The first player to sink all of his/her opponents ships wins the game.

The Challenge

You job will be to create a 1-player version which will play against the computer without any user input. A sample output can be seen [here](#).

Awards

Lottery Award: If you are new to Python, you are encouraged to go through the Codecademy Pro Python3 tutorials. There are 11 modules in total which assume no background in programming. Once you finish the seventh module, share a screenshot of your progress. This challenge will run for 15 days and you can self-pace your learning. Based on screenshots received for the day, we will pick lottery winners with odds of one in ten! Winners will get cash prize worth INR 300 each.

Final Submission Award: At the end of the challenge, the top 5% participants will win cash prize worth INR 2500 each. In addition, if you successfully complete the game, you can win lottery prizes with odds of one in ten worth INR 1000 each!