Quiz: Object-oriented Basics

Test your basic OOP concepts explained in this chapter with a quiz.

We'll cover the following

Match the answers

You're a game developer who's been tasked with developing some of the popular games such as tic-tac-toe, Sudoku, and so on. To define the requirements and implement an initial structure of your project, you decide to use object-oriented programming that helps in establishing relationships and visualizing them.

An example of how the structure of this project will be defined is given below:

```
-> Game : class
    -> playerNum : int
    -> makeMove() : void
    -> getPlayers() : string

-> TicTacToe : Game
    -> isHuman : bool
    -> getIsHuman() : bool

-> Sudoku : Game
    -> value : int
    -> setValue() : void
```

The structure of OOP classes

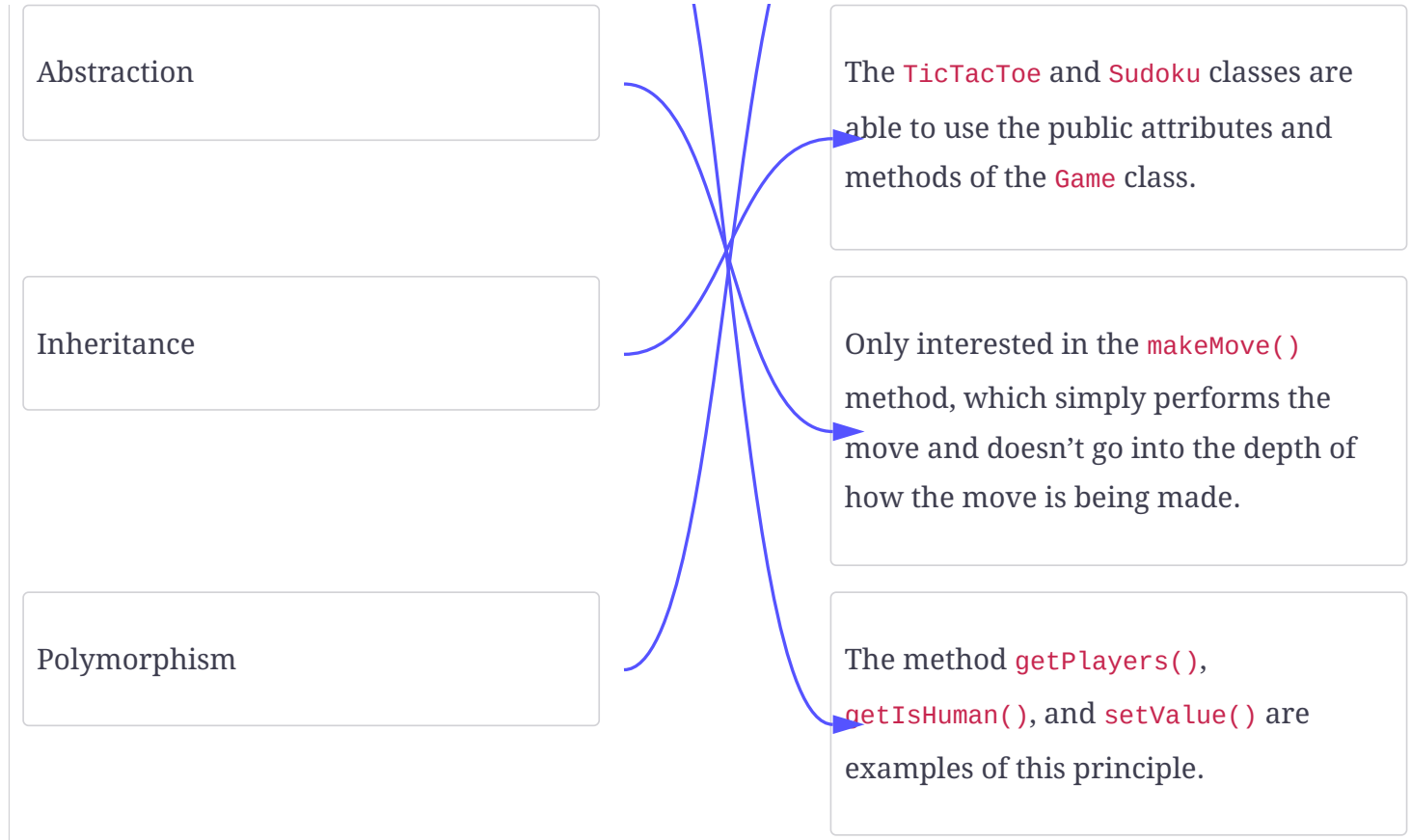
Using the scenario given above, match the OOP principles in the left column with their correct examples from the right column.

Match The Answer

Select an option from the left-hand side

Encapsulation

Each game will have its specific way of making a move. Hence, the `makeMove()` function will be unique to each game.



Reset | Show Solution | Submit

MCQs

Challenge yourself by solving the following quiz questions.

5 **(Select all that apply.)** What condition(s) must be satisfied for the method overriding?

Selected Option

A) The method name must be the same.

Not Selected

B) The parameters must be the same.

Not Selected

C) The return type must be the same.

Submit Answer

Question 5 of 5
5 attempted

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Mark as Completed

2 **(Select all that apply.)** Which statement(s) is correct about abstraction?

Selected Option

A) Abstraction restricts access to data members of a class.

Not Selected

B) Abstraction focuses on what work an object does instead of how it is done.

C) Abstraction hides data from the outside world.

Not Selected

D) Abstraction hides irrelevant implementation details.

Reset Quiz | Question 2 of 5 | 2 attempted | Submit Answer

3 Which statement describes an abstraction?

Your Answer

A) When we turn on the light switch, current flows from the positive terminal of the battery to the negative terminal passing through the light bulb. When the circuit completes, the light bulb turns on.

B) When the brake pedal in a car is pressed, the brake fluid activates the hydraulic piston. This adds pressure on the rotating braking disc which causes the vehicle to slow down.

Correct Answer

C) In a game, when we press the “Attack” button, the player character launches an attack.

D) When we take a photo, the camera shutter opens and closes at some speed allowing exposure for a fraction of time. During this, the camera sensors capture the light and create a digital image.

Reset Quiz | Question 3 of 5 | 3 attempted | Submit Answer

4 What is the process that allows an object to acquire the properties of another object?

Your Answer

A) Encapsulation

B) Abstraction

Correct Answer

C) Inheritance

D) Polymorphism

Reset Quiz | Question 4 of 5 | 4 attempted | Submit Answer

5 **(Select all that apply.)** What condition(s) must be satisfied for the method overriding?

Selected Option

A) The method name must be the same.

Not Selected

B) The parameters must be the same.

Not Selected

C) The return type must be the same.

Reset Quiz | Question 5 of 5 | 5 attempted | Submit Answer