

## Implementation of the four pillars

### Encapsulation

Private:

*Puzzle Pattern: private array*

*Player Class: score*

Controlled access:

*Cell generation - prevents invalid changes to occupied cells*

Ensures that it cannot be modified or interfered with directly by outside classes

### Inheritance

*Player - base class*

New Player extends Player

*Puzzle Mode - base class*

Set Difficulty Mode extends Puzzle Mode

### Polymorphism

Turn Based gave Process Move, but

*TurnBased - checks which player is playing*

### Abstraction

*PuzzlePatternSet - hides how moves are counted*

*SolveSet - hides how puzzles are validated for pointing*

*GeneratorSet - hides how puzzles are generated (patterns are set to avoid duplicates)*