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Delta Strategy Write-up

For this assignment, I utilized both the factory and template design pattern. I used the factory design pattern to abstract away the creation of a game. And I used the template design pattern to define the necessary components of a strategy game in an organized way.

The template design pattern was implemented using a class called "StrategyGameTemplate". This is an abstract class which has three method signatures: "`MoveResult move(int fr, int fc, int tr, int tc)`", "`boolean isValidMove(Square squareFrom, Square squareTo)`", and "`MoveResult strike(Square squareFrom, Square squareTo)`". These three methods must be overwritten in the concrete classes that extend it. This ensures that the different implementations of the strategy game all follow the same behavior.

The factory method was implemented using a class called "StrategyGameFactory" which will take an enumeration, which defines the game the user wants, as an input and return a game of that type. This is particularly useful because while the delta strategy needs a board the alpha strategy does not. The factory method hides that detail.