

Task Description

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Simulate a simplified Capital game with the following components:

1. Players:

- Each player starts with 10,000 money.
- Players have different strategies: Greedy, Careful, Tactical.
- Players move around a cyclical board based on dice rolls.

2. Board Fields:

- **Property Field:** Can be bought for 1,000. Players can build a house for 4,000. Rent is 500 without a house, 2,000 with a house.
- **Service Field:** Player pays a specified amount to the bank.
- **Lucky Field:** Player receives a specified amount of money.

3. Strategies:

- **Greedy:** Buys property or builds a house if they have enough money.
- **Careful:** Buys only if the cost is at most half of their current money.
- **Tactical:** Skips every second opportunity to buy.

4. Game Rules:

- Players move based on dice rolls.
- If a player lands on a property owned by another player, they pay rent.
- If a player runs out of money, they lose and their properties become available for purchase.
- The game reads parameters from a text file, including board setup, player details, and dice rolls.

5. Output:

- Print the name of the second player to lose.

Testing

Test case 1

1. testReadGameFile_ValidInput

We will give valid input it will check it and we will see it is false or not

2. testReadGameFile_FileNotFound

It will check if the file is not found it will throw exception.

3. testReadGameFile_InvalidFieldType

Wrong field will be given which will throw exception.

4. testReadGameFile_InvalidPlayerStrategy

It will check if the player strategy is wrong and it will throw exception.

5. testPlay

It will take input data and we will check method play. After that it will check player's position.

6. testGetSecondLoser

It will take correct input and give us name of 2nd loser.

7. testPlayerBalanceAfterServiceField

It will check the balance of player after it steps on service field(player has to pay bank specified amount.)

8. testNotEnoughPlayerLost

It will see if number of players lost is less than 7 it will give an error message