Theory

Note:
Before you start this project, it's better to get familiar with the basic domino rules. Keep in mind that there are many versions of the game. The rules used in this particular project will be described as we go along.

As you might know, a domino is a playing piece that is characterized by the two numbers written on it. The numbers are integers and can range from 0 to 6. A single domino piece has no orientation, so, a full domino set (that includes all the possible pairs of numbers) will have 28 unique dominoes.

You may think that there should be 7*7=49 dominoes in total. However, this is not the case because the combinations like [1,2] and [2,1] are the same domino, not two separate ones.

Description

To play domino, you need a full domino set and at least two players. In this project, the game is played by you and the computer.

At the beginning of the game, each player is handed 7 random domino pieces. The rest are used as stock (the extra pieces).

To start the game, players determine the starting piece. The player with the highest double ([6,6] or [5,5] for example) will donate that domino as a starting piece for the game. After doing so, their opponent will start the game by going first. If no one has a double domino, the pieces are reshuffled and redistributed.

> Status indicates which player is to make the next move.

Objectives

1. Generate a full domino set. Each domino is represented as a list of two numbers. A full domino set is a list of 28 unique dominoes.
2. Split the full domino set between the players and the stock by random. You should get three parts: Stock pieces (14 domino elements), Computer pieces (7 domino elements), and Player pieces (7 domino elements).

3. Determine the starting piece and the first player. Modify the parts accordingly. You should get four parts with domino pieces and one string indicating the player that goes first: either `"player"` or `"computer"`.

```
Stock pieces      # 14 domino elements
Computer pieces   # 7 or 6 domino elements
Player pieces     # 6 or 7 domino elements
Domino snake      # 1 starting domino
Status            # the player that goes first
```

   If the starting piece cannot be determined (no one has a double domino), reshuffle, and redistribute the pieces (step 3).

4. Output all five variables.

Examples

Example 1

The player makes the first move.

```
Stock pieces: [[2, 5], [1, 2], [3, 6], [0, 0], [0, 2], [5, 6], [3, 5], [2, 4], [3, 4], [1, 5]]
Computer pieces: [[1, 4], [1, 3], [2, 3], [4, 5], [2, 2], [0, 3]]
Player pieces: [[0, 6], [5, 5], [4, 4], [4, 6], [0, 1], [0, 5], [1, 6]]
Domino snake: [[6, 6]]
Status: player
```

Example 2

The computer makes the first move.

```
Stock pieces: [[2, 6], [3, 4], [5, 6], [0, 5], [1, 2], [4, 6], [2, 3], [0, 6], [0, 0], [6, 6]]
Computer pieces: [[0, 2], [3, 6], [4, 4], [3, 5], [1, 5], [0, 3], [2, 5]]
Player pieces: [[1, 3], [1, 4], [4, 5], [1, 6], [1, 1], [0, 4]]
Domino snake: [[5, 5]]
Status: computer
```