Python Blackjack

CoderDojo

Normal

Python ★★

You can make a card game using Python! This is a version of Blackjack.

Rules

There is a standard deck of 52 playing cards.
There are two players: a dealer (the program) and the user.
Player's win by scoring the highest number as the total value of their cards.
A player going over 21 automatically loses the game as soon as they do so.
Jack, Queen and King count as 10.
An Ace counts as for 1 or 11, whichever gives the better score.
In a turn, a player can either draw (take another card) or stick (stop taking cards).
Once the user has chosen "stick", the dealer gets the same choices.
The dealer should draw until they have a score of 17 or more, then stick.

Build this game with a simple text interface for the player to see what's happening and choose their moves.

Hard

Python ★★

Everything at Normal, plus:
Let the user play as many rounds of the game as they like, keeping score (1 point for a win) between rounds.

Allow the user to choose how many decks of cards to use to play.

Ultra

Python ★★

Everything at Hard, plus:

Don't shuffle at the end of every hand. Remember which cards are left and only re-shuffle everything back into the deck once you run out of cards.

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Tools

Things to remember from Sushi Cards

Lists — Lists of cards, you might need a few!

Dictionaries — Store the card's name and value separately.

While loops — The game as a whole, and the individual stages in it.

For loops — Handy for scoring hands and creating multiple decks.

Variables — All over the place, really. Variables are always your friend.

Functions — Keep your code organised, and re-use pieces where possible.

Tips

Ideas, help, etc.

This isn't straightforward, so plan it out before you start writing code.

For creating the multiple decks, consider having one "template" deck that you copy into a "working" deck a few times.

You'll need a special treatment for the Ace. Its value might change!

Tricks

New code you'll need to know

```
# Shuffle a list.
from random import shuffle

list_of_dogs = [“spot”, “fluffy”, “rex”]

shuffle(list_of_dogs)
```