

## Switch Studios Developer L1 Technical Test

In order to ascertain your skills, experience and general approach to problem-solving, we have devised a short take-home test for you to perform. The test should take an hour or two to complete and we'll have a chat about your implementation as part of your interview.

Please note that this test is intentionally open-ended, as we are more interested in observing your approach to problem solving, rather than determining how familiar you are with a particular language or set of tools.

You are free to use any programming language, framework, library or engine of your choice to solve this technical test. The program you create can take almost any form you want it to – the only requirement we have is that it conforms to the criteria of the “Deliverables” section below.

We look forward to meeting you and seeing what you come up with – good luck!

### The Brief

You work for *Big Casino Corp.*, developers of the industry leading “PokerMatic 9000”. The PokerMatic 9000 is a revolutionary program capable of parsing any input poker hand and determining the best ranking. There's only one problem – Bobby, the notoriously clumsy intern, has erroneously deleted the only copy of the source code from the company network drive!

Scrambling to react to the loss of their flagship software, *Big Casino Corp.* have tasked you with rewriting the PokerMatic 9000 from scratch. The company director dusts off the original design document, which can be found overleaf.

It is advisable that, in conjunction with the design document, you perform some research into poker hand rankings to fill any gaps you may have in your knowledge. After Bobby's most recent antics, the last thing the company board needs is more live bugs...

The executives at *Big Casino Corp.* are appreciative of the tight timeline on this project and have simply asked that you implement **as many poker hand ranking rules as possible in the allotted time.**

### Deliverables

- The program is **not** generated with ChatGPT, GitHub Co-pilot, or any other generative AI assistant (using a search engine is perfectly acceptable, however).
- The program source code you create must be available online (e.g. GitHub), as we cannot receive code by email or via removable media such as a USB stick.
- The program must be delivered as buildable source code, or be executable within the context of a runtime, interpreter or web browser – **we cannot directly run .exe files.**
  - Valid examples – *a bundled JavaScript project that can be served with a web browser; a Python/Ruby/PowerShell/Bash script; a Godot/Unity/Phaser project provided with source code. This is not a comprehensive list – we are very flexible.*
  - Invalid examples – *a pre-compiled Windows binary with no source code; a program that can only be executed on proprietary hardware (unless you want to bring said hardware with you to the interview).*

## *The PokerMatic 9000 - Design Document (TOP SECRET)*

The PokerMatic 9000 is a program that must output the highest poker rank that exists in an input string that represents five standard playing cards.

Playing cards each have two attributes – rank and suit.

- The ranks are Ace, 2 – 10, Jack, Queen & King.
- The suits are Diamond, Spade, Club & Heart.

The PokerMatic 9000 expects the card rank to be represented by an integer (0 – 13), and the suit by a character (D, S, C, H) such that:

- 0C = Ace of Clubs
- 4S = Four of Spades
- 12H = Queen of Hearts
- 13D = King of Diamonds

The PokerMatic 9000 expects input in the form of a comma delimited string containing five of these card values – for example “11C, 11D, 11S, 0S, 3H”.

The PokerMatic 9000, when fully completed, should be capable of checking for the following poker ranks:

- High Card
- Pair
- Two Pair
- Three of a Kind
- Straight
- Flush
- Full House
- Four of a Kind
- Straight Flush
- Royal Flush

### *Examples*

Input	Output
“13H,8C,12D,7H,2S”	“High Card”
“9H,9C,9D,12H,3C”	“Three of a Kind”
“13S,10S,8S,7S,5S”	“Flush”

### *Error Handling*

If any aspect of the input card data string is incorrect, the PokerMatic 9000 will error appropriately.