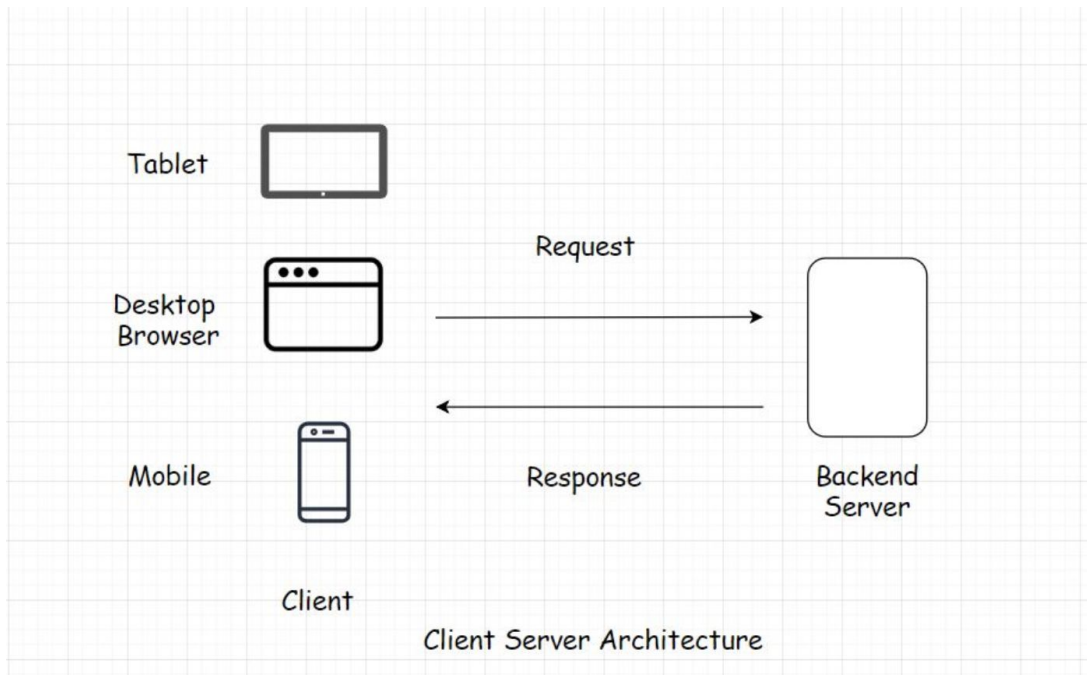


Part 1:

Every website you browse, be it a Wordpress blog or a web application like Facebook, Twitter or your banking app is built on the client-server architecture.



Explain in a few words how the Communication Between the Client & the Server over request-response takes place.

Part 2:

Given an array and a number "n", find two numbers from the array that sums up to "n".

Sample Input #

arr = {1, 21, 3, 14, 5, 60, 7, 6}

value = 27

Sample Output #

arr = {21, 6} or {6, 21}

Write an efficient solution in pseudo code or algorithm, also compute and give a small explanation of the Big O complexity of the code snippet.

Part 3:

AirBNB operating in Thiruvananthapuram wishes to offer Bed and Breakfast(B&B) services over the internet. They have three B&B in Thiruvananthapuram: CoconutValley, AakulamLake and VeliBeach. Each B&B has separate weekday and weekend(Saturday and Sunday) rates. There are special rates for rewards customers as a part of the loyalty program. Each hotel has a rating assigned to it.

CoconutValley with a rating of 3 has weekday rates as Rs1100 for regular customers and Rs800 for rewards customers. The weekend rates are 900 for regular customers and 800 for a rewards customer.

AakulamLake with a rating of 4 has weekday rates as Rs1600 for regular customers and Rs1100 for rewards customers. The weekend rates are 600 for regular customers and 500 for a rewards customer.

VeliBeach with a rating of 5 has weekday rates as Rs2200 for regular customers and Rs1000 for rewards customers. The weekend rates are 1500 for regular customers and 400 for a rewards customer.

Can you write a program to help an online customer find the cheapest hotel?

The input to the program will be a range of dates for a regular or rewards customer. The output should be the cheapest available hotel.

***In case of a tie, the hotel with the highest rating should be returned.**

INPUT FORMAT: <customer_type>: <date1>, <date2>, <date3>, ... OUTPUT FORMAT:
<name_of_the_cheapest_hotel>

Example Test Cases:

INPUT 1: Regular: 16Mar2009, 17Mar2009, 18Mar2009

OUTPUT 1:CoconutValley

INPUT 2: Regular: 20Mar2009, 21Mar2009, 22Mar2009

OUTPUT 2: AakulamLake

INPUT 3: Rewards: 26Mar2009, 27Mar2009, 28Mar2009

OUTPUT 3: VeliBeach

Further Guidelines:

- You can use any programming language but Java is preferred.
- No database to be used.
- No GUI is required but will help if your code includes JUnit Testing.

- The code must be object-oriented and should be well designed.
- Care should be given that if more B&B is added, the program will accept that without any logic change.

The above cases are not exhaustive, the solution should give correct outputs for any other applicable test cases also.