

Create a simple sessionless Web Application (Web Service + Frontend) with the following requirements:

1. Non-functional requirements
 - The presented solution must be **production ready**.
2. Data - the server stores the price history of a share sold on the stock market during some time period.
 - The data is static
 - The history is without interruption with a discretion interval of one second (a price value for each second).
 - The stored data is in some period explicitly known in advance (from - to).
 - Usage of a database engine is not a must. Please represent the static data as you see fit.
3. Functional spec
 - The main purpose of the implemented Web Service is: given a query that consists of a time slice (within the whole data period) a client will receive two points in time - "buy time" and "sell time", which represent the most profitable choice for buying and selling stocks during the given time slice (i.e. when to buy and when to sell in order to make the most profit).
 - Both time points should be within the query time slice
 - The "buy time" point should be before the "sell time" point, naturally :)
 - If there is more than one best solution with equal profit, the service should return the one that is earliest and shortest.
4. API
 - The Web Service accepts two time points as parameters - the start and end points of the time slice within which a solution is searched for.
 - The returned result contains the "buy point", "sell point" and the stock prices at the two time points.
 - The API should offer adequate response in case of erroneous data.
5. UI (UX)
 - The user interface should be minimalistic yet pleasant to use and look at.
 - It should offer a choice of query time period.
 - The query should be invoked via a button.
 - Additionally, the interface should contain a field, which the user will fill with available funds - the maximum sum that the user can spend to buy stock.
 - The result should be printed in a human readable way - stating the buy date, sell date, how many stocks could have been bought and sold and what would have been the profit.