

## Inventory Search – Code Test

Generate an Angular App to create a cleaner looking version of this.

### Inventory Search

Criteria	Search By:	Branches (comma separated)	Actions
AB	Part Number	(e.g. SEA PDX)	<input type="checkbox"/> Only Available
	Part Number	Description	Branch Available UOM Lead Time (days) Last Purchase Actions
▪ AB-1100	Standard Adapter 100	SEA 306 FT 28	2025-03-25T13:32:52.5061922-04:00 <input type="button" value="Peak availability"/>
▪ AB-1105	Compact Seal 105	SEA 321 RL —	2024-11-02T13:32:52.5062224-04:00 <input type="button" value="Loading..."/>
No peak availability loaded yet. Use "Peak availability".			
▪ AB-1110	Lightweight Filter 110	SEA 203 LB 20	2024-08-27T13:32:52.5062319-04:00 <input type="button" value="Peak availability"/>
Lots			
<ul style="list-style-type: none"> <li>Lot LOT-59357 — Qty 148 — Exp N/A</li> <li>Lot LOT-45517 — Qty 26 — Exp 2026-03-12T13:32:52.5062344-04:00</li> <li>Lot LOT-13780 — Qty 29 — Exp N/A</li> </ul>			
<b>Part: AB-1110</b> <b>Total available: 203</b> <b>By branch:</b> <ul style="list-style-type: none"> <li>SEA: 203</li> </ul>			
▪ AB-1115	Heavy-Duty Clamp 115	DEN 252 FT 15	2025-08-04T13:32:52.5062456-04:00 <input type="button" value="Peak availability"/>
▪ AB-1120	Standard Gasket 120	LAX 175 RL 12	2024-04-30T13:32:52.5062705-04:00 <input type="button" value="Peak availability"/>
Lots			
<ul style="list-style-type: none"> <li>Lot LOT-47514 — Qty 31 — Exp N/A</li> <li>Lot LOT-53956 — Qty 74 — Exp 2026-08-14T13:32:52.5062729-04:00</li> <li>Lot LOT-23284 — Qty 70 — Exp N/A</li> </ul>			
No peak availability loaded yet. Use "Peak availability".			
▪ AB-1125	Standard Coupling 125	DAL 115 FT 39	2025-02-20T13:32:52.5062855-05:00 <input type="button" value="Peak availability"/>
▪ AB-1130	Compact Clamp 130	ATL 339 EA 29	2024-08-08T13:32:52.5063013-04:00 <input type="button" value="Peak availability"/>
▪ AB-1135	Compact Bearing 135	DAL 426 LB 19	2025-02-22T13:32:52.5063817-05:00 <input type="button" value="Peak availability"/>
No lot details available.			
No peak availability loaded yet. Use "Peak availability".			
▪ AB-1140	Economy Pump 140	SEA 188 EA 12	2024-01-23T13:32:52.5063958-05:00 <input type="button" value="Peak availability"/>
▪ AB-1145	Economy Clamp 145	LAX 348 BX 9	2025-01-10T13:32:52.5064092-05:00 <input type="button" value="Peak availability"/>
▪ AB-1150	Heavy-Duty Valve 150	PDX 125 LB 33	2023-03-25T13:32:52.5067428-04:00 <input type="button" value="Peak availability"/>
No lot details available.			
No peak availability loaded yet. Use "Peak availability".			
▪ AB-1155	Industrial Gasket 155	JFK 120 LB —	2025-06-03T13:32:52.5067563-04:00 <input type="button" value="Peak availability"/>
▪ AB-1160	Lightweight Valve 160	ATL 457 PK 19	2024-08-10T13:32:52.5067686-04:00 <input type="button" value="Peak availability"/>
▪ AB-1165	Standard Fitting 165	PDX 36 LB 5	2025-02-02T13:32:52.506789-05:00 <input type="button" value="Peak availability"/>
▪ AB-1170	Economy Fitting 170	ATL 442 EA 18	— <input type="button" value="Peak availability"/>
▪ AB-1175	Economy Adapter 175	SFO 299 LB 7	— <input type="button" value="Peak availability"/>
No lot details available.			
No peak availability loaded yet. Use "Peak availability".			
▪ AB-1180	Premium Coupling 180	ATL 56 LB 26	— <input type="button" value="Peak availability"/>
▪ AB-1185	Lightweight Bearing 185	JFK 432 RL —	2025-03-05T13:32:52.5068426-05:00 <input type="button" value="Peak availability"/>
▪ AB-1190	Industrial Clamp 190	SFO 33 BX 32	— <input type="button" value="Peak availability"/>
▪ AB-1195	Lightweight Adapter 195	DEN 499 FT 42	— <input type="button" value="Peak availability"/>

[Prev](#) | [Page 2 / 4](#) | [Next](#)

### Code Test Brief

Basic outlines are given for both to help as a starting point

Looking to get a well designed solution.

Looking to see what your design choices are for the UI with regards to look and feel. The example given above is an ugly UI looking for something much cleaner with a professional look to it.

You are allowed to use any tools to help you complete this task expectation is to be completely open about what you used and why and how you used it.

### Requirements

- Use Angular 18 preferred
  - HttpClient for API calls

- Strong typing via TypeScript interfaces
  - Reactive forms
- Basic Structure to the code is supplied in the repository with lots on hint comments in the code
- Behavior:
  - Show a loading indicator while searching
  - Cancel in-flight requests if a new search is fired
  - Display errors appropriately
  - Cache the most recent 5 unique searches for 60 seconds (avoid duplicate API calls within TTL)
- Acceptance criteria:
  - Functional form with validation, loading state, cancel-on-new-search
  - Results with sorting, pagination, and expandable rows
  - Caching prevents duplicate API calls within 60 seconds for last 5 distinct queries
- Deliverables:
  - Source code for the feature (Angular TypeScript, HTML, SCSS) so that it can be built then run against the mock inventory server
  - C# files required to build the Server with Service layer unit tests for the C# project
  - Quick start instructions (README)

Inventory-mock-api is the server supplied to allow you to test your angular code. Note this code along with the json returned should be sufficient allow you to complete the C# (Note there may or may not be some missing fields to the supplied C# models)

Inventory-Search contains a starting point for the angular code

InventoryServer contains a starting point for the C# .NET project. The repository layer is an area where you can get creative, if you so desire, as to how you want to generate the data. The mock javascript code randomizes the data you can follow that mechanism if you want or you can do something completely different.

Please be creative what I want to see is well structured easily readable, understandable code.

You are free to modify the API if you deem it appropriate. If doing so please give reasons as to why this is a better solution.

There is no limit on how you choose to develop the solution, I would like a reasoning as to the why and how for using any tools. As software developers our day to day tasks often require the use of these tools this code test should be treated no differently.