



## Programming Assignment

"ShopBridge" needs you to build a website that helps track the different items they have for sale. This will require a frontend/backend solution.

**Frontend Requirements:** Pick a **User Interface Framework** that you are comfortable with or interviewing for. (**Angular, ReactJs, React Native, ASP.NET MVC, Blazor, Any BOT Framework**)

Create a page with a component at the top that can be used to add a new item to the inventory. The component should require a name, description, and price for the new item. Extra points if you can upload a picture of the item as well. Below the component that adds new items to the inventory, display a list containing the name and price of each item in the inventory. If your app supports image uploads, you can display a thumbnail here as well. Each item in the list should have a button to remove it from the inventory. Clicking on an item should bring the user to a new page with all the information about the selected item (name, description, price, and optionally photo).

All API calls should be asynchronous and not cause any full-page reloads. The only full-page reloads the user should see are those caused by navigating between the two pages of the app

Regarding visual styles, the only requirement is that the content of both pages should be both horizontally and vertically centered. Beyond that, feel free to demonstrate whatever presentational knowledge/skills you have. Just remember to keep it simple.

**Backend Requirements:** Pick a **server side programming language** that you are comfortable with or interviewing for. (**C# / Python / Java / F# MockAPI <https://mockapi.io/>** )

Implement the API for "ShopBridge". Use a relational (**SQL Server / MSSQL / Postgres**) database and any ORM you feel comfortable with for any persistent data storage needs. All of the functions of the frontend need to be served by an API call and the store's inventory should be persisted across restarts of the backend process.

### Tracking

Please do your best to keep track of how long you spend on the implementation of each of the

1. Backend functionality
2. Frontend functionality
3. Frontend presentational aspects (styling, DOM, etc if applying for a UI or Fullstack Role)
4. Backend – Frontend Integration
5. Unit Test Coverage

### Deployment Requirements:

The deliverable will be shared via **GitHub, BitBucket, or SourceTree** holding all relevant code to deploy to a production server.



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### **Evaluation and Scoring:**

The design should be simple and minimal. You are free to ask any questions for clarification or help.

You will be evaluated on the below attributes -

6. Completeness of Frontend requirements (code, unit testing, detailed steps to run with screenshots, sql scripts for database)
7. Completeness of Backend requirements (code, unit testing, detailed steps to run with screenshots)
8. Deployment ready Code with Code Coverage of at least 90% (using any Code Coverage Tool like PyUnit, MSUnit, NUnit, XUnit etc.)
9. Code Readability
10. Use of Technical concepts
11. Tracking or Journaling your work to state how you spent your time on this Problem (Division of total time you spent on the project)

### **Next Steps:**

1. **Read the requirement thoroughly.** Please keep a copy of it for a reference if needed.
2. Send the deliverable *as per the following deadlines to the email addresses given at the end of this*
3. 3 Days after the test was sent.

via **GitHub, BitBucket, or SourceTree**. If not received within the specified time, we will consider it as an un-attempted question

1. Click on the Submit button of this test.

**IMPORTANT NOTE** - DO NOT send an invite to collaborate. Add the deliverables in PUBLIC REPOSITORY in Github, Bitbucket or SourceTree and send the LINK to the following email IDs -

**Primary** - deep@thinkbridge.in

**CC** - shivani@thinkbridge.in