Web Development The big picture

Summary

Architecture

UX/UI

Frontend

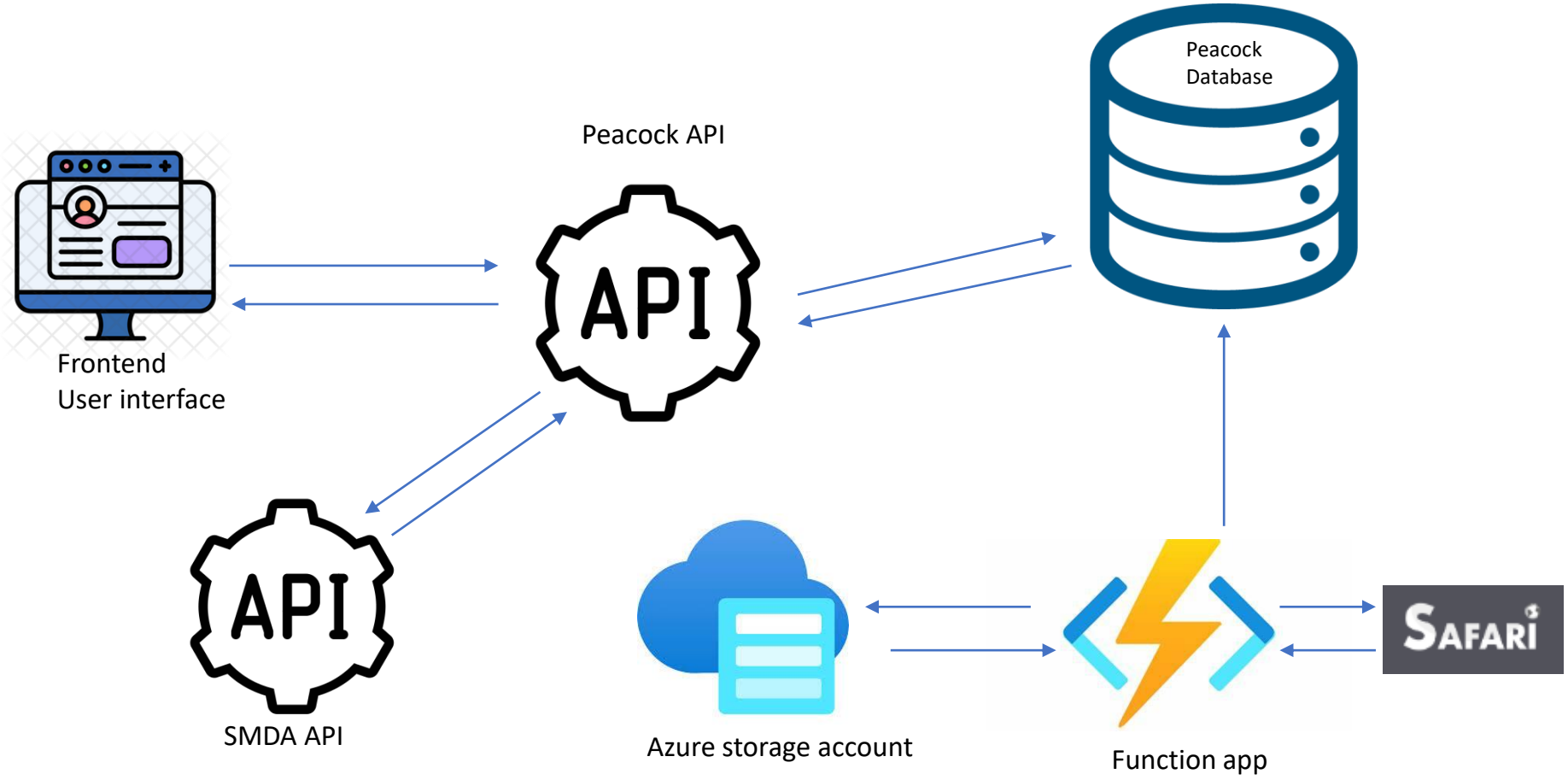
HTML
CSS
JavaScript/Typescript

Backend

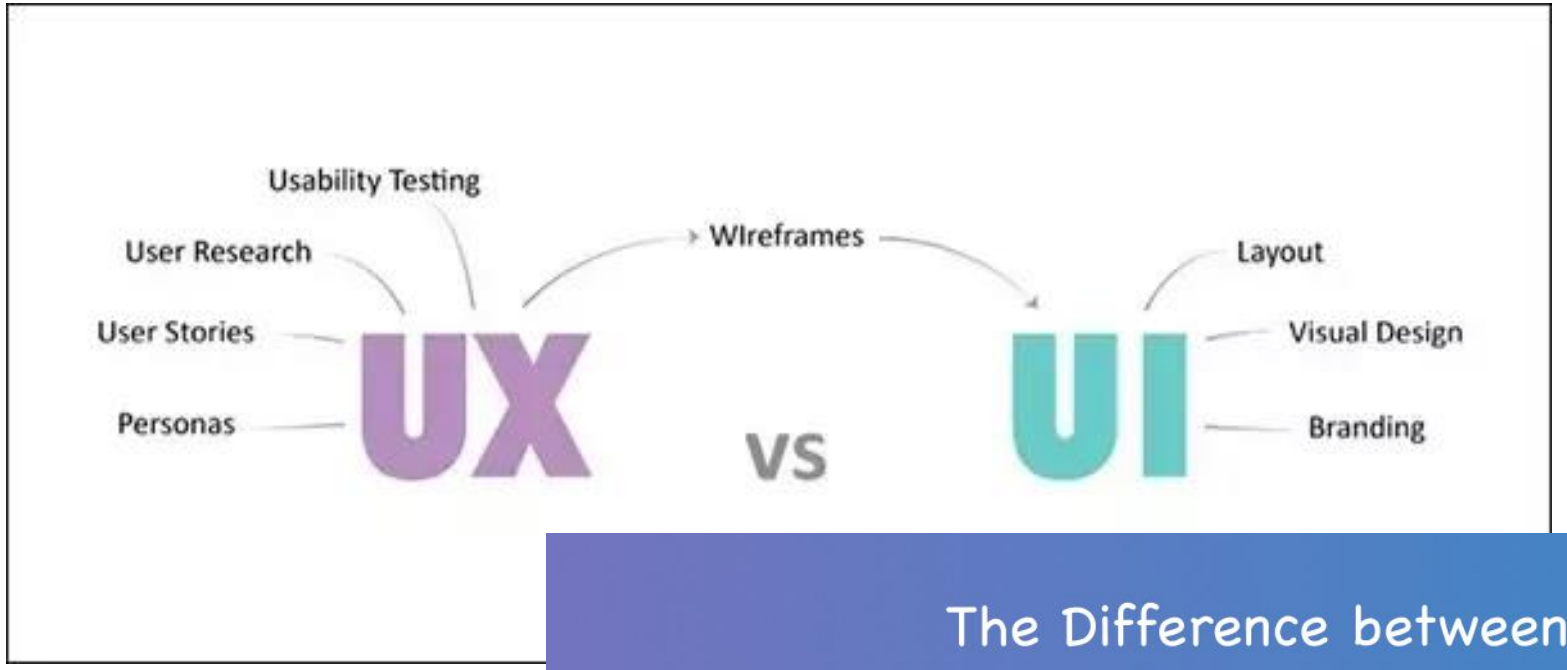
API
Database
Function Apps

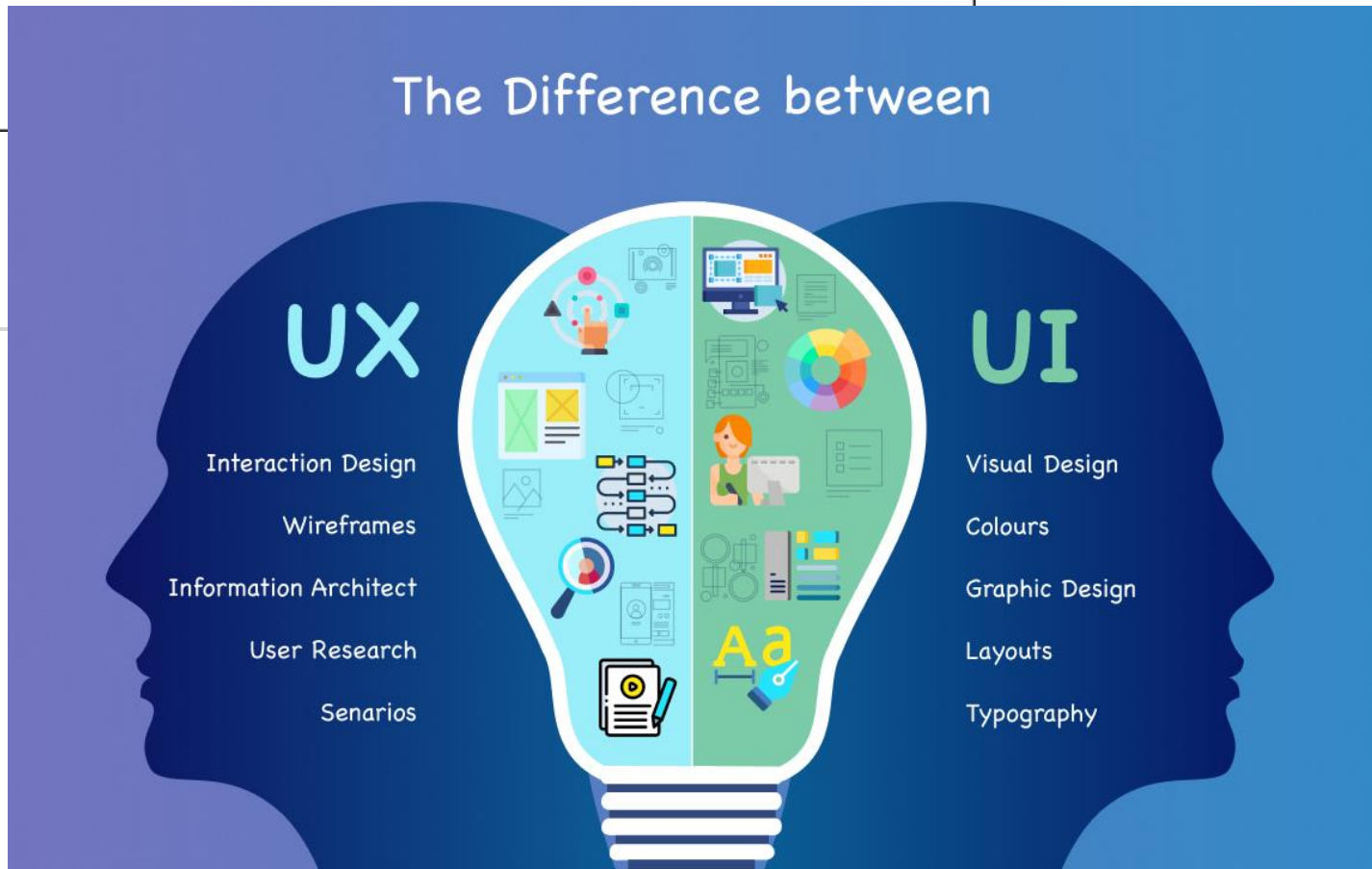
Testing

Web App Architecture



UX/UI


Usability Testing
User Research
User Stories
Personas
UX
Wireframes
VS
UI
Layout
Visual Design
Branding


The Difference between
UX
Interaction Design
Wireframes
Information Architect
User Research
Senarios
UI
Visual Design
Colours
Graphic Design
Layouts
Typography

THE “HOUSE” ANALOGY:

-RITCH MACEFIELD

INFORMATION ARCHITECT:

Ensures that the master bedroom accommodates a double bed and 2 tables and that the only bathroom is not in the garage.

INTERACTION DESIGNER:

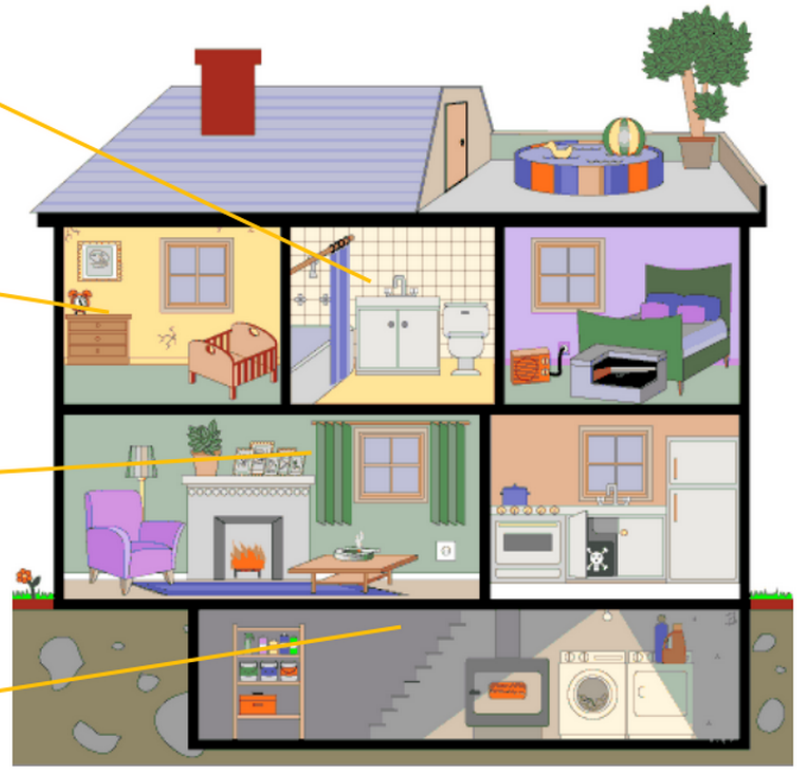
Ensures that the cold water tap is on the right and that all the stairs have banisters.

VISUAL DESIGNER:

Chooses the carpets, curtains and furniture.

USABILITY ANALYST:

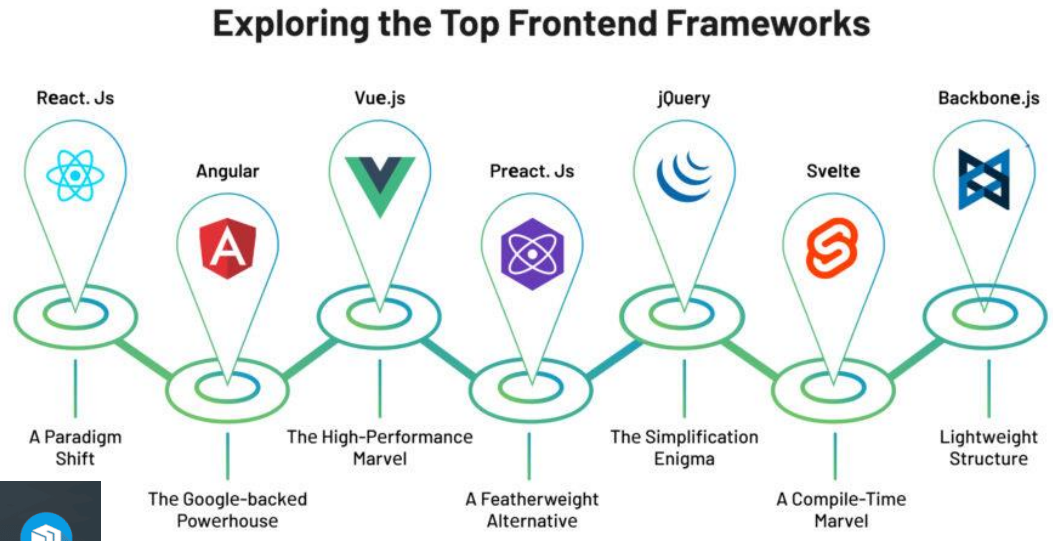
Inspects the house after each key stage in the building process (conceptual design stage, planning stage, and once the building is completed).



UX ARCHITECT:

Conceives the whole experience of the home owner. Has overall responsibility for the design, leading and briefing all of the people in specialist roles, and represents the home owner (not the builders) throughout the design process.

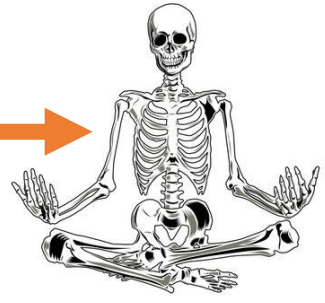
Frontend



What's the Difference?

HTML
Hypertext Markup Language

Create the structure
- Controls the layout of the content
- Provides structure for the web page design
- The fundamental building block of any web page

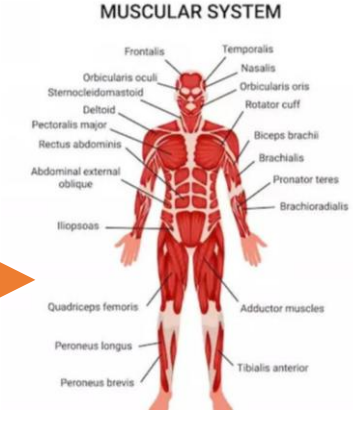


CSS
Cascading Style Sheet

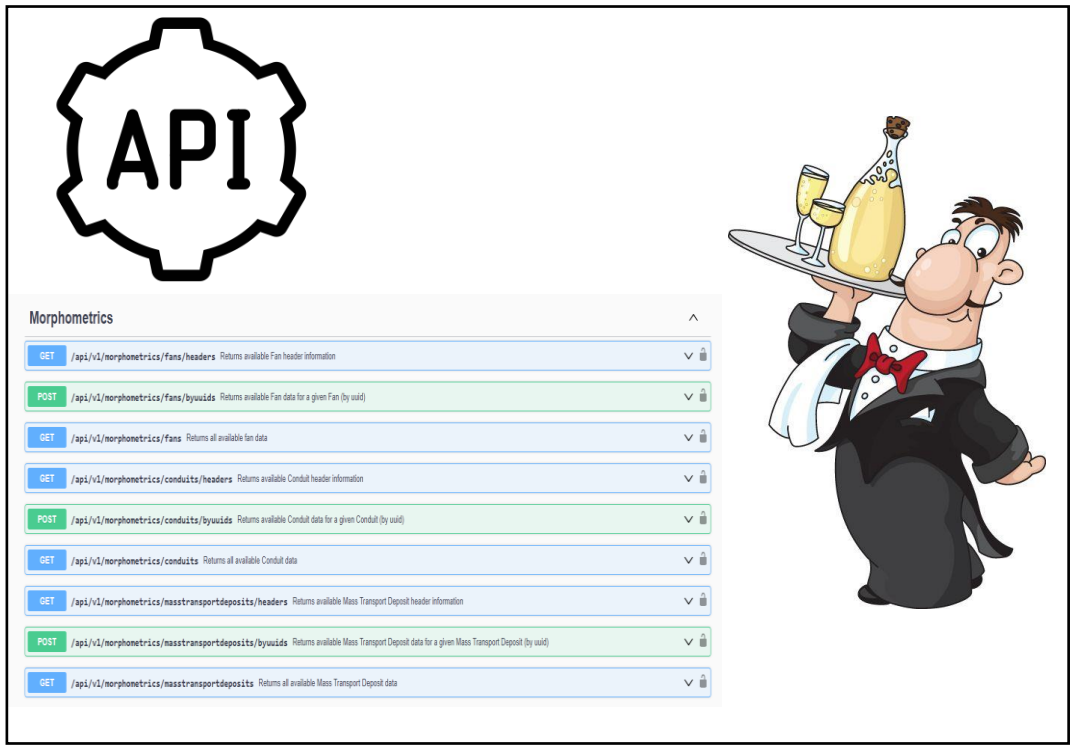
Stylize the website
- Applies style to the web page elements
- Targets various screen sizes to make web pages responsive
- Primarily handles the "look and feel" of a web page

Javascript

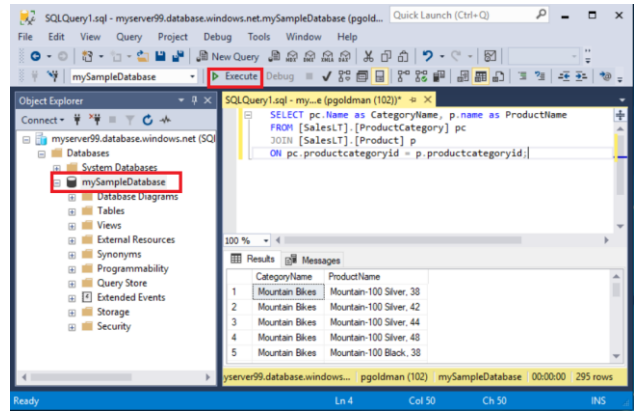
Increase interactivity
- Adds interactivity to a web page
- Handles complex functions and features
- Programmatic code which enhances functionality

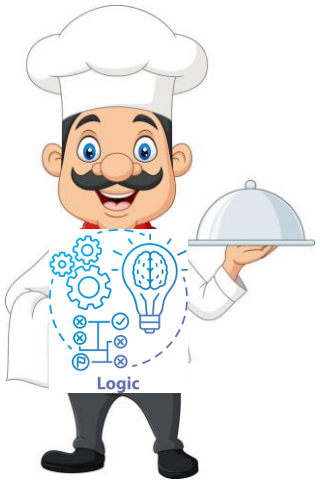


Backend

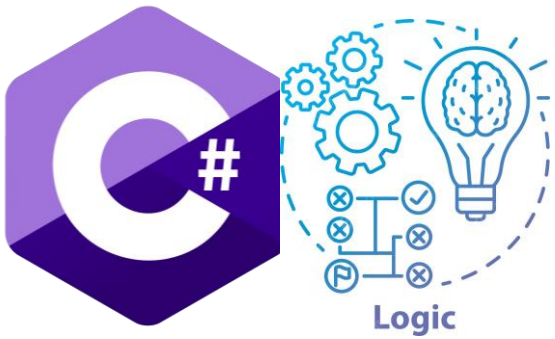


Database





Function app



API

End User *with Browser*

Request

Response

Server *Back-end System*

Customer

Make the Order

Delivery of order

Waiter

Take the Order

Bringing from Kitchen

Chef

Testing

Why is testing important? Explained using a cake baking metaphor, curtesy of chatgpt

Planning the Ingredients (Unit Testing)

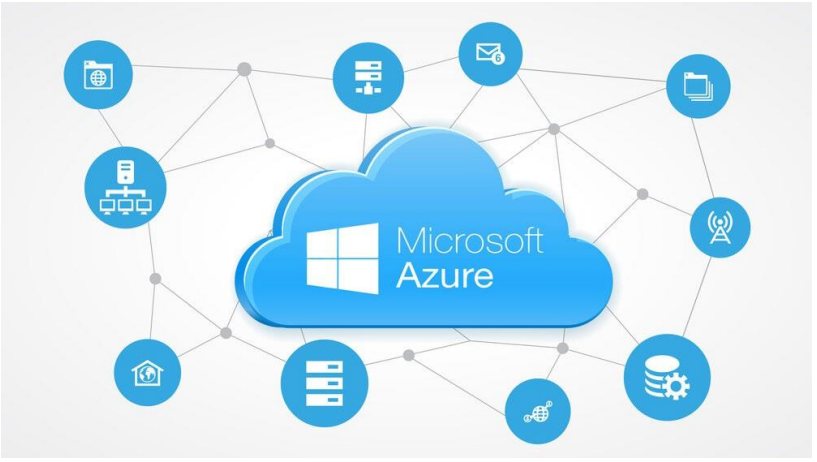
Mixing the Batter (Integration Testing)

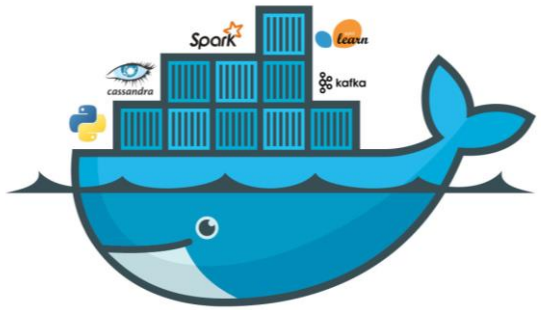
Baking the Cake (System Testing)

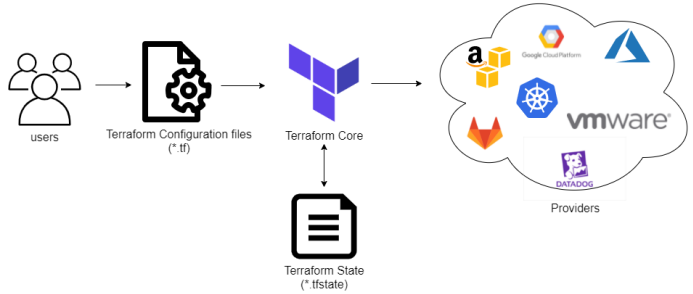
The Final Decoration (Acceptance Testing)

The Taste Test (User Testing)

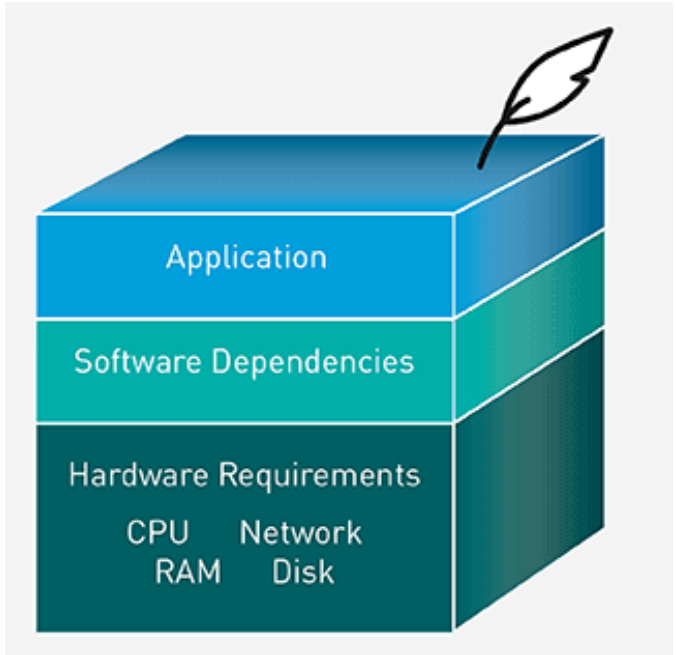
Testing is important because, just like with baking a cake, you want to catch any issues early, ensure all the parts come together nicely, and ultimately, provide a delightful experience to the end-users. Without testing, you could end up with a cake that looks good on the outside but is inedible—similar to software full of bugs and issues that frustrate users and don't meet their needs.







kubernetes



Terraform

For another time…