Welcome to MSA Web Apps & APIs Bootcamp

1. We will be commencing shortly
2. This is a Microsoft Teams Live event, so you are placed on mute for the entire duration.
3. If you have any questions, please select "Ask a question" or upvote by liking existing ones.
4. Captions can be turned on anytime by clicking the "CC" icon.
5. At any point where you get lost, you can rewind the live stream to any point in time.
6. This workshop is being recorded and all recordings can be accessed via the same link you used to access this live event.
7. Having this workshop being recorded, should you not consent, please feel free to leave if you wish.
8. For updates on the program, please join our Facebook group at https://aka.ms/MSAFacebook
9. We hope you enjoy the session!

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MSA
Microsoft Student Accelerator

presents

Web App & APIs Bootcamp

Agenda

01 Welcome Announcements

02 Web Dev Concepts

03 Live Demo

04 Submission & Marking Guidelines

05 Microsoft Intern Showcase

06 Q&A

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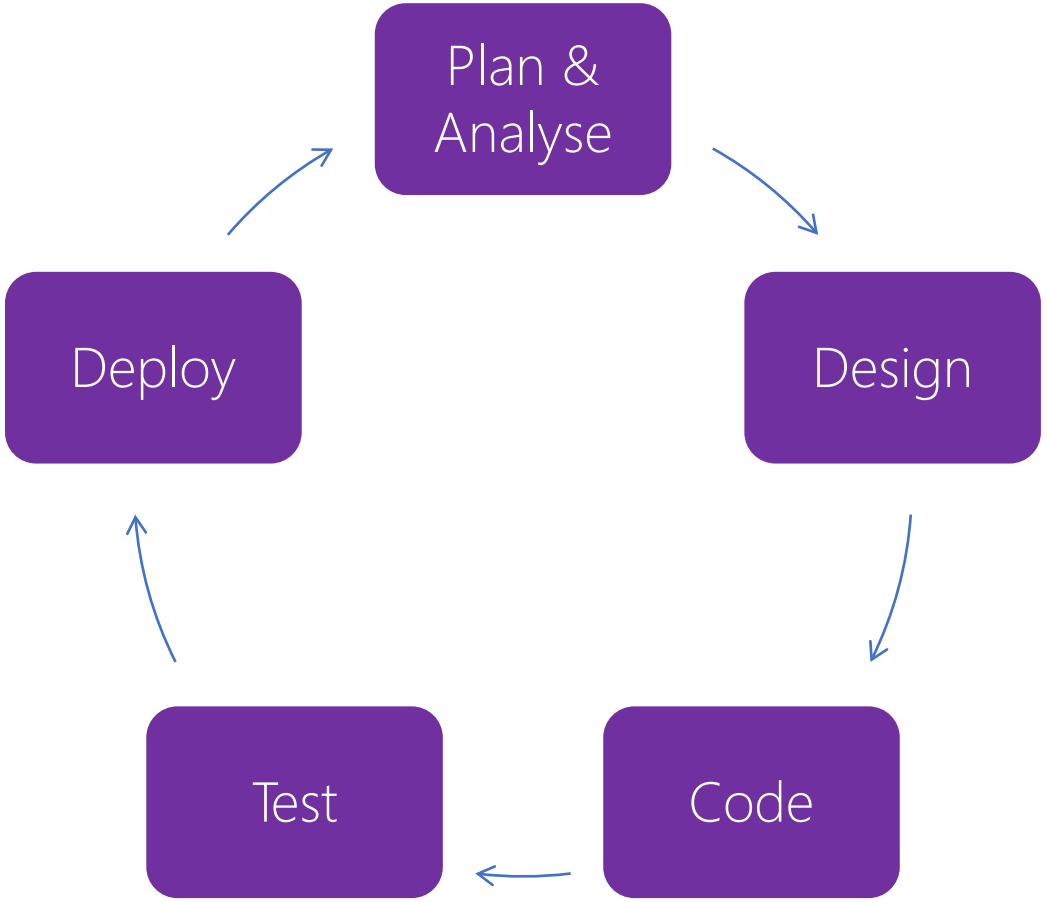
Web Dev Concepts

Website vs Web Apps

Websites	Web Apps
Informational	Interactive
Prime purpose is to present information	Dynamic service which collects responses from user and changes state accordingly
Example: Restaurant website with menu	Example: Outlook, Facebook etc.

Web Development Lifecycle



Front-End + Back-End = Full-Stack

Front-End

- Front-End development primarily focuses on client-side code.
- Involves designing user-interface and experience

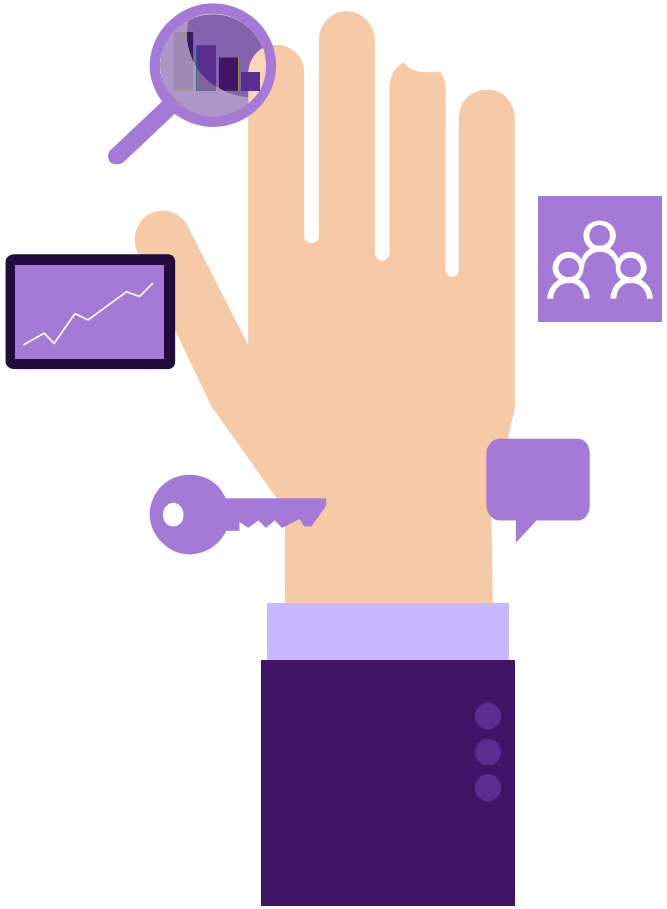
Back-End

- Mainly refers to server-side development.
- Under-the-hood
- Manage database and APIs

Behind The Scenes – Backend

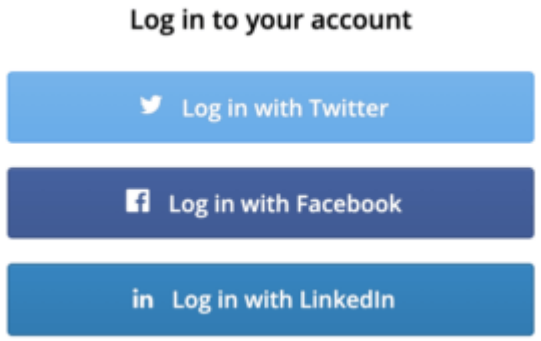
What goes under the hood?

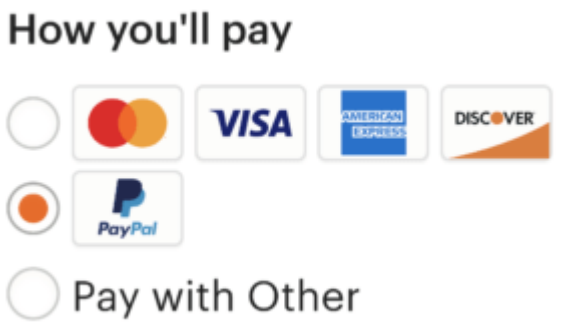
- Process, store and serve data using databases
- Ensure security & privacy of the web app and its users
- Handle request-response of APIs
- Provide interaction with users as well as third-party web services



What are APIs?

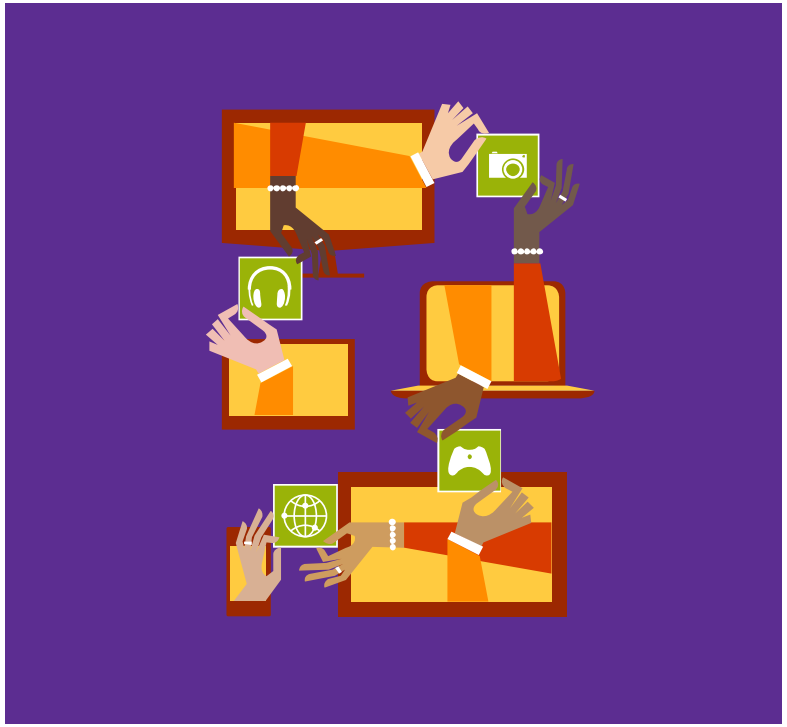
- A method/way for software and web services to use communicate
- User interface – not for humans, but for apps and other software
- Examples:





REST APIs

- REST is a convention / set of rules for web services to communicate with each other.
- REST architecture is uses HTTP protocol to communicate
- Central to RESTful websites are resources

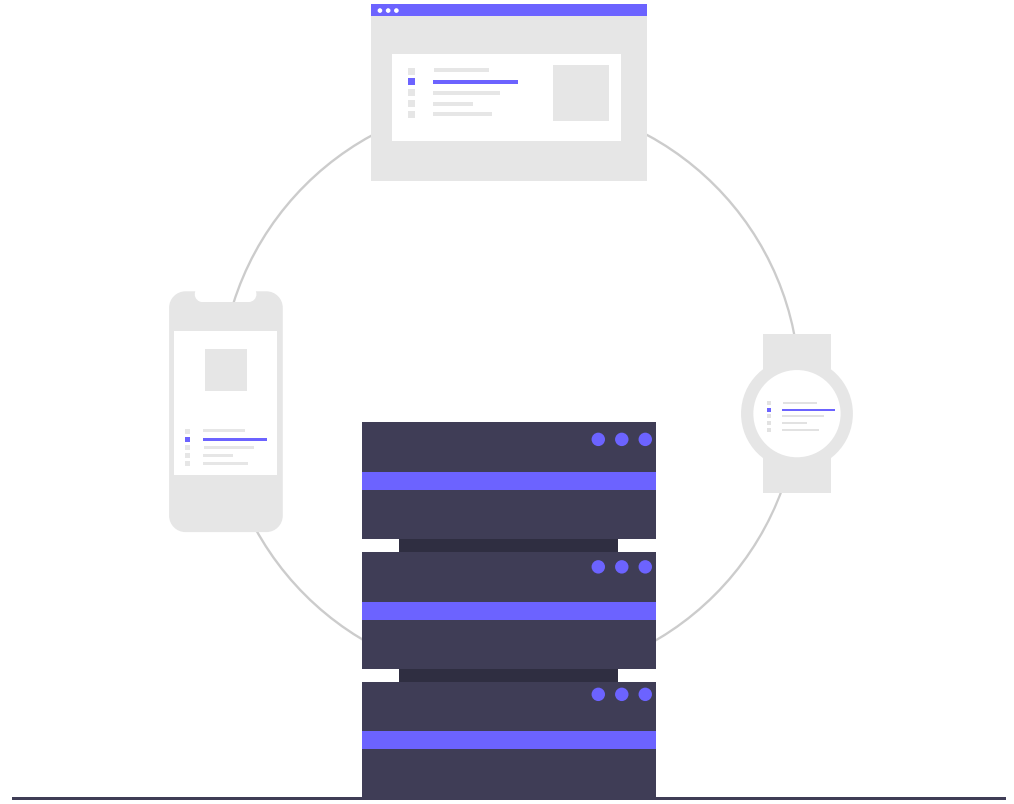


Characteristics of a REST System

HTTP Method	Action	Example
GET	Obtain information or resource	http://example.com/api/orders (retrieve order list)
POST	Create/Update a new resource	http://example.com/api/orders (create a new order, from data provided with the request)
PUT	Create/Update a new resource	http://example.com/api/orders/123 (update order #123, from data provided with the request)
DELETE	Delete a resource	http://example.com/api/orders/123 (delete order #123)

Hosting a Web Service

1. Choose a hosting provider
2. Deploy your app using hosting provider of choice
3. Buy Domain name
4. Get SSL Certificate



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Live Demo

To-Do App

- We will create an interactive To-Do with **HTML, Bootstrap & Flask**
- You are **not expected to follow along** with the pace. We have put up a step-by-step guide to follow at your own pace later.
- **Step-by-step guide:** https://github.com/JerryyZhu/todo_markdown

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Submission Guidelines

Submission Guidelines

- Fill the project submission form
- Detailed instruction can be found on the Bootcamp GitHub
- Please make sure your GitHub repo is public

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Intern Showcase

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