







# TESTING!

## Best Practices

- Testing isolated small pieces of code - Most should be unit tests
- Async tests - Promise (microtask), Timer, XHR (HttpClient)
  - Tests can complete too early. Use “done();”
- Async await
  - done(); can't handle errors. Use **async await**.
  - You get an opportunity to write an asynchronous code in synchronous fashion.
- fakeAsync
  - looks async but is synchronous
  - tick() simulates the asynchronous passage of time.

## Future

- AOT Test - use aot mode in unit test, much faster.

# Google Cloud

LOTS of ML and Big Data tools.

- **Examples Given:**
  - **Data Loss Prevention API (DLP) - auto scrubbing.**
  - **Auto ML Vision API - image learning**
    - Upload images, train, deploy, and generate predictions
  - **BigQuery - RDBMS - managed**
    - Use SQL to search HUGE amounts of data
    - Queried all of GitHub for package.json and inside what is the top npm dependency in a couple minutes.