CSE565 Unit Test Framework

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1. **What is a unit testing framework?**

A unit testing framework is a software tool or library that provides a structured environment to support the writing, execution, and management of unit tests.

1. **How would a developer utilize a framework?**

A developer uses a framework to run automated tests by providing inputs and expected outputs, with the framework verifying that the actual output matches expectations.

1. **What benefits does a framework provide?**

A framework increases testing speed and efficiency, improves accuracy and quality, and reduces maintenance costs for tests.

1. **Identify 2 frameworks for further consideration: Jest vs Jasmine.**

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| --- | --- | --- |
| Feature | Jasmine | Jest |
| Installation | manual installation as a standalone library | pre-packaged with Create React App |
| Syntax | BDD style | TDD style |
| Assertions | basic assertions | assertions and mock support |
| Snapshot Testing | requires additional library | built-in support |
| Asynchronous Testing | not as good as Jest | easy and fast |
| Test Reporting | basic reports | detailed test and coverage reporting |
| Ecosystem | work better with Angular | developed to work with React |

1. **Reference**

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