Lab 6: Managing Software

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Subject:

Software Development Concepts

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Professor:

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Part 2 - Understanding Makefiles

1. Which file(s) are included in the SRC variable?
A. Three files are included
> 1.) Food.java
> 2.) HfxDonairExpress.java
> 3.) Menu.java

2. What file(s) does the all target depend on?
A. all target depends on
> 1.) Food.class
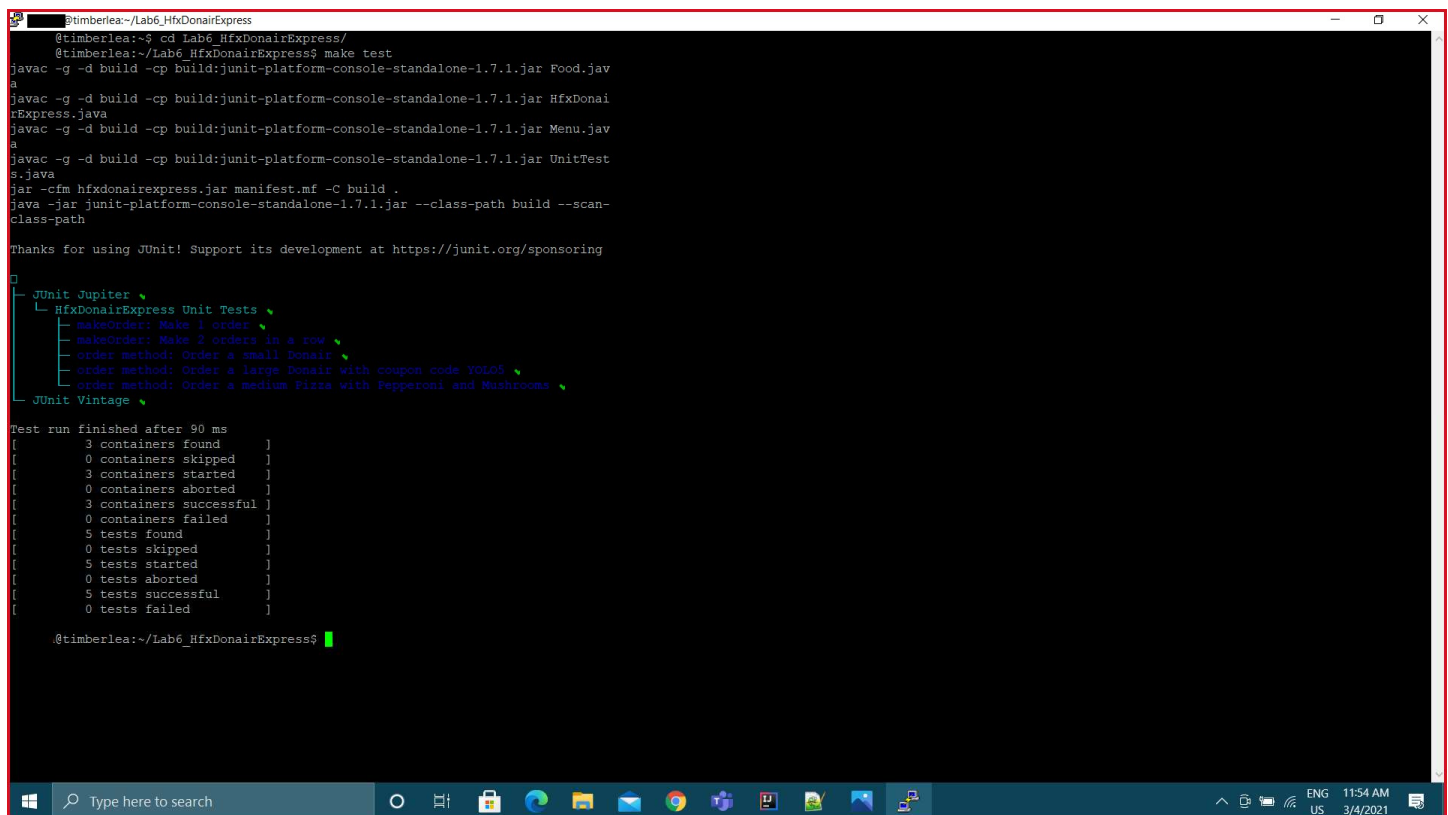> 2.) HfxDonairExpress.class
> 3.) Menu.class
> 4.) manifest.mf

 => i.e., It depends on manifest.mf file and all the files in "build" folder.

3. What is the command used to make the hfxdonairexpress.jar file?
A. Command used to make the hfxdonairexpress.jar file is "make" or "make all".

4. What does the test target do? You may want to try running the command make test to see
A. "make test" runs all the JUnit test cases.

Questions

1. Why is it important to have a portable, reproducible build system that isn't tied to a particular IDE?

=> It helps us to create executable applications from the source code. (e.g., .jar for java project)

=> It helps us in compiling, linking, and packaging the source code in executable form.

=> It automates the tasks developers do daily like:

> -> Running test cases
>
> -> Dependencies downloading and management
>
> -> Compilation of source code to binary code
>
> -> Packaging the binary code

=> It makes the process more efficient and consistent.

2. How often should you run a class' test suite when developing a software system? Explain.

=> When new changes implemented to the code, run test suite to make sure it gives 100%.

=> Run test suite as often as possible. Frequent testing gives confidence that changes made did not break anything.

3. Can you see any reason to split test cases up into separate files, or should you just include all of your test cases for every class in the same file?

=> It is not a good practice to add all the test cases for every class in the same file. It makes the code hard to read. Having separate test cases in respected files makes code easier to understand.

=> It is not always required to run all the test cases with only a few changes made. So, having separate test cases files helps us to isolate the tests and run only the required tests.