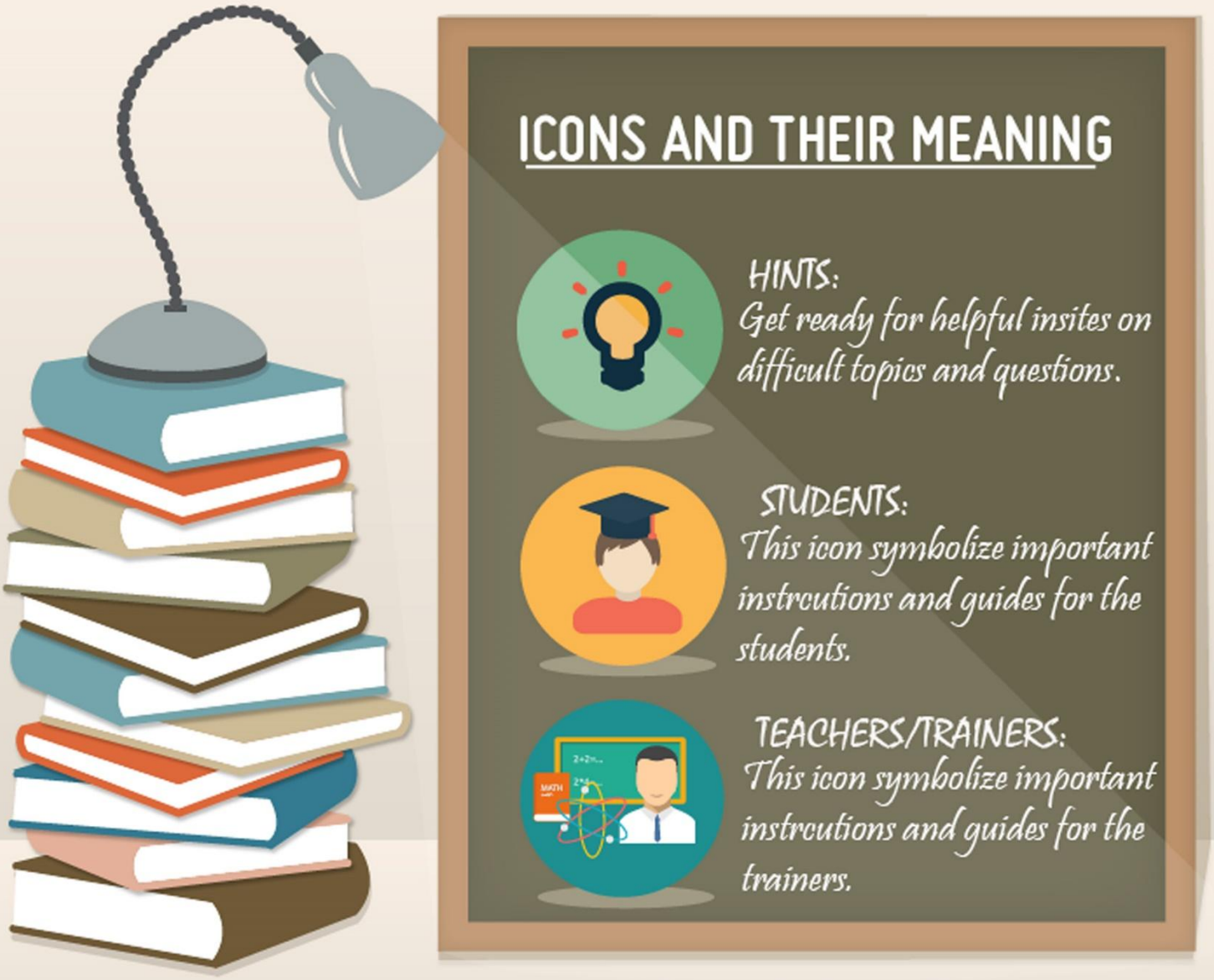
Full Stack Module-XII

Manual V8.3

ANUDIP FOUNDATION


ICONS AND THEIR MEANING
HINTS:
Get ready for helpful insites on difficult topics and questions.
STUDENTS:
This icon symbolize important instrcutions and guides for the students.
TEACHERS/TRAINERS:
This icon symbolize important instrcutions and guides for the trainers.

Total Duration: __ Hours

Lesson 01: Grunt And Gulp (120 minutes)

Objective: After completing this lesson you will be able to learn about : • Task Runners • GRUNT • GULP	**Materials Required:** • Computer With Windows XP and above • Stable Internet connection
Self- Learning Duration: 120 minutes	**Practical Duration:** nil
Total Duration: 120 minutes	

Understanding Task Runners

Task runners are integral part of any application, be it the web based ones or mobile based. They quietly toil behind the applications and offer value through the automation of numerous development tasks like concatenating files, spinning up development servers and compiling code. Grunt and Gulp are two of the most popular task runners.

GRUNT

Grunt is one of the most popular JavaSript task runners that focus primarily on automation technique. Certain tasks like compilation minification, and testing are automated by Grunt. Through the use of Grunt, programmers can easily develop customized workflows with the help of JavaScript. It's more convenient to use due to the absence of advanced concepts.

Features of GRUNT

- Grunt is best for small projects.
- Favors configuration over code and gives developers more decision-making power
- Grunt plug-ins can do more than one thing, processing multiple tasks.
- Runs on OS X, Windows, and Linux
- Develops build flows with JavaScript
- Easy to learn: just pick plug-ins, then install and configure them to your project
- Manages deployments
- Uses JSON-like data configuration files
- Large community of users and contributors
- Developers do not have to be proficient in Node.js to use (vs. Gulp)
- Sites that use Grunt include: Twitter, Adobe, and jQuery.

GULP

Gulp can be best defined as a streaming build system that automates and streamlines tasks using Node.js's streams and modules. It's an opinionated tool and favors simple plug-ins, which gives it some clear benefits. Gulp also uses plug-ins like Gulp; however, the streamline approach gives developers more

control over the workflow. Grunt will do more work behind the scenes with each plug-in, but Gulp enforces a more simple, clean, readable code.

Features of GULP

- Cross-platform operating system support
- Gulp is totally JavaScript based and uses small Node modules designed to do one specific task well, and then executes the task concurrently.
- The Gulp API is simple, elegant, and easy to use.
- Gulp files are simply JavaScript files. You can write/use existing Node modules without even requiring a Gulp plug-in.
- By using Node's stream system, it's faster than Grunt, which is I/O—meaning, files have to be opened and closed before and after execution. As a result, Grunt has to read and write a disk multiple times.
- Gulp focuses on the code, while Grunt focuses on the task. This means Gulp code will be easier to read on the other side, and there's more flexibility.
- Orchestrator enables developers to set up task dependencies, allowing for more control over the sequence of plug-ins.

Understanding Streaming Build System

It's an asynchronous approach to tasks that involves processing files independently, then piping them downstream to the next plug-in. There's no waiting, just a steady flow of processing tasks.

Reviewing the chapter

Task Runners quietly toil behind the applications and offer value through the automation of numerous development tasks like concatenating files, spinning up development servers and compiling code.

Grunt and Gulp are two of the most popular task runners.

Testing your skills

1. Which of these are Task Runners

a) GRUNT, b) GULP, c) both (a) and (b), d) None of the above

2. Which of these are features of GRUNT

a) Best for small projects, b) Multiple tasks, c) Large community of users, d) all of the above

3. Which of these are features of GULP

a) Cross-platform, b) Develops build flows with JavaScript, c) Both (a) and (b), d) None of the above

4. _____enables developers to set up task dependencies

a) Task Manager, b) Orchestrator, c) Both (a) and (b), d) None of the above

5. _____ API is simple, elegant, and easy to use

a) GULP, b) GRUNT, c) Both (a) and (b), d) None of the above