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Class-03

Assignment-1

**Question**

Is there an alternative method available to transpile our TypeScript code without executing the tsc command?

**ANSWER**

**Using the Command Palette:**

As mentioned earlier, we can transpile a TypeScript file using the Command Palette (Ctrl+Shift+P) and typing "TypeScript: Compile File" to trigger the compilation.

**Using the TypeScript Task Runner:**

Visual Studio Code allows us to define tasks in a tasks.json file, which can include TypeScript compilation tasks. We can set up a custom build task that executes the tsc (TypeScript compiler) command to transpile our TypeScript files.

**To create a custom build task:**

Press Ctrl+Shift+B to open the "Run Build Task" command.

Select "Create tasks.json file from template" and choose "TypeScript" as the template.

This will generate a basic tasks.json file with a task for compiling TypeScript files. We can customize it as needed to match our project setup.

**Using the Auto-save and Auto-compile (Experimental):**

Visual Studio Code has an experimental feature that automatically transpiles TypeScript files when they are saved. To enable this:

Go to "File" > "Preferences" > "Settings" (or press Ctrl+,).

In the Settings, search for "typescript.tsserver.experimental.autoBuild" and enable it.

With this feature enabled, whenever you save a TypeScript file, it will be automatically transpiled to JavaScript.

**Using the Watch Mode (tsc -w):**

We can open a terminal in Visual Studio Code and run the TypeScript compiler in watch mode (tsc -w). This will continuously watch for changes to our TypeScript files and automatically transpile them to JavaScript whenever we save a file.

**Using a Build Tool:**

If we are using a build tool like Webpack, Parcel, or Gulp, we can set up the build configuration to include TypeScript compilation as part of our build process. These build tools often have plugins or loaders for TypeScript that handle the transpilation for us.