**FSWD Requirements and System Setup**

**Q. 1**

**List all the tools you might use as a web developer.**

**Answer:**

The tools form the core toolkit for web developers, enabling them to create, manage, and maintain web applications effectively. Depending on the specific project and technology stack, additional tools and services may be necessary.

1. Text Editors and IDEs: These are essential for writing and editing code efficiently. Popular choices include Visual Studio Code, Sublime Text, and JetBrains IDEs.

2. Version Control Systems (e.g., Git): Git is crucial for tracking changes in your codebase, collaborating with others, and managing code repositories.

3. Web Browsers: You need them for testing and debugging your web applications. Common options include Google Chrome, Mozilla Firefox, and Safari.

4. Command Line Tools: The command line is used for various tasks, including running scripts, managing dependencies, and interacting with servers.

5. Package Managers: Tools like npm (for JavaScript), yarn, and Composer (for PHP) help manage and install libraries and dependencies efficiently.

6. Front-end Technologies: HTML, CSS, and JavaScript are fundamental for building the user interface and interactivity of web applications.

7. Back-end Technologies: Depending on your project, you might use server-side technologies like Node.js, Python (with frameworks like Django or Flask), or PHP (with frameworks like Laravel).

8. Databases: Select an appropriate database system such as MySQL, PostgreSQL, or MongoDB to store and manage your application's data.

9. API Development and Testing Tools: Tools like Postman and Swagger help design, develop, and test APIs, which are essential for connecting different parts of a web application.

10. Testing and Debugging Tools: Selenium, Jest, and other testing frameworks assist in ensuring your application functions correctly and identifying and fixing issues.

11. Server Management and Deployment Tools: Tools like Docker, Heroku, and cloud services (e.g., AWS, Azure) facilitate the deployment and scaling of web applications.

12. Collaboration and Communication Tools: Platforms like Slack, Microsoft Teams, and project management tools (e.g., Jira) help teams collaborate, communicate, and manage tasks efficiently.

**Q.2**

**What are some of the features of PW Skills Online Lab? Explain how they are useful.**

**Answer:**

PW Skills Online Lab is a user-friendly online code editor lab designed to facilitate coding and programming tasks. Its features are geared toward enhancing the coding experience, increasing productivity, and promoting effective learning. Here are some of its notable features and their usefulness:

**Syntax Highlighting**

**Auto-Completion**

**Code Debugging**

**Version Control Integration**

**Multi-Language Support**

**Real-Time Collaboration**

**Cloud-Based Storage**

**Interactive Tutorials**

**Customization Options**

**Error Highlighting and Suggestions**