CPR101NAA- Week9 Activity - Software Development (100%)

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- Answers are highlighted

Part A – SDLC Software Development Life Cycle (70%)

You can apply the SDLC process to anything that requires investigation, planning, and execution. e.g., your decision to come to Seneca, moving residences, or just getting a cup of coffee. Choose any task you want and apply SDLC to that task.

- I will be applying SDLC to the task of completing a school assignment.

A. *What is the Problem?*

➢ *Determine:* This is largely given by the task specs but how do you become comfortable with the scope of the task? How do you create a plan to complete it?

- The task is understanding and completing the assigned school work.
- To get comfortable with the task's scope, I would read the assignment thoroughly and ask questions if anything is unclear.
- Create a plan outlining all the steps needed to finish the assignment on time.

➢ *Define the detailed requirements*. What do you do to fully understand the problem? How do you ensure you have a firm grasp of all inputs, processing, and outputs?

- Break down the assignment into specific functions and tasks to fully understand what's required.
- Figure out what resources, research, and outputs (like an essay or a presentation) are required.
- Chat with peers or the teacher to make sure I have a good understanding of the assignment.

B. *What is the solution?*

➢ *Design:* Please, don't jump into solution yet. How will you design a solution? Do you know the technical skills the solution requires? What about creating a flowchart to document the process? Is there value in writing the steps first? (The answer is yes.) How will the process of design help the development process?

- Designing the solution helps make sure requirements are being met.
- Brainstorm different approaches and pick the best one.
- Check what skills are needed and gather any extra info or help.
- Make a flowchart or outline to lay out a plan and write down the steps to keep things organized.

➢ *Develop:* What is your process of implementing your design? (Just describe your development process.) What is your process to test your process? How do you know you reached your goal?

- Testing helps ensure the assignment is error free before submission.
- Start work on the assignment immediately, following the plan made.
- Research, write, code – do whatever is needed to complete the assignment.
- Keep an eye on progress and adjust if anything needs to change.
- Test everything to make sure it works like it's supposed to. Fix any problems or mistakes accordingly.

➢ **Deliver:** *How do you manage the delivery? How do you resolve issues when things do not work as expected?*

- **Follow any guidelines outlined for submitting assignments.**
- **Talk to peers and the teacher for feedback.**
- **If there are any problems, try to resolve them ASAP.**

➢ **D'oh:** *The last stage in industry is ongoing system maintenance and user support. How do you ensure that the task is maintainable when the work is done? How do you ensure that the process that you used is maintainable when later requirements are added?*

- **Keep the assignment organized so it's easy to update if needed.**
- **Write down any changes or extra info for future reference.**
- **Help out classmates if they're stuck on similar assignments later on.**

Part B – Software Version (30%)

Research the version of a software application you use, such as a game, photo editor, browser, or IDE. Usually, the version can be found under the Help menu, About…

A. <u>**What is the name of the software and its current version?**</u>

- **Visual Studio Code - Version: 1.87.1**

B. <u>**What do the components of the version number mean?**</u>

- **The components of the version number for VS Code use a format of 'major.minor.release'.**

C. <u>**In what way would that software be forward compatible?**</u>

- **Follows a frequent release cycle with regular updates. .**
- **Designed to be cross-platform, runs on Windows, macOS, and Linux.**
- **Development team actively gathers feedback, addresses issues, and considers feature requests.**
- **Integrated with emerging technologies and frameworks commonly used in software development.**

D. <u>**In what way would that software be backward compatible?**</u>

- **Ensures that extensions developed for older versions remain compatible whenever possible.**
- **Preserves compatibility with existing user configurations and settings across updates.**
- **Maintains backward compatibility with programming languages and frameworks.**
- **Supports backward compatibility for projects created in older versions of the editor**
- **Provides backward compatibility through comprehensive documentation and support resources**

E. *Find the release notes (AKA changelog) for that software and include the URL, release date, and a description of one of the latest changes. Programmers wrote those notes.*

● https://code.visualstudio.com/updates/v1_87

February 2024 (version 1.87)

Update 1.87.1: The update addresses these issues.

Update 1.87.2: The update addresses this security issue.

Downloads: Windows: x64 Arm64 | Mac: Universal Intel silicon | Linux: deb rpm tarball Arm snap

Welcome to the February 2024 release of Visual Studio Code. There are many updates in this version that we hope you'll like, some of the key highlights include:

- **Voice dictation in editor** - Use your voice to dictate directly in the editor.
- **Multi-cursor inline suggestions** - Review and accept inline suggestions for multiple cursors.
- **Copilot-powered rename suggestions** - Get rename suggestions for symbols from Copilot.
- **Side-by-side preview refactoring** - Preview refactorings across files with multi diff editor.
- **Smarter Python imports** - Improvements for adding missing Python imports.
- **Sticky scroll in editor** - Sticky scroll is enabled by default in the editor.
- **Multi-language support for speech** - Multiple languages supported for speech recognition.
- **Copilot suggestions for dev containers** - Get template and feature suggestions for dev container configurations.

If you'd like to read these release notes online, go to Updates on code.visualstudio.com. **Insiders:** Want to try new features as soon as possible? You can download the nightly Insiders build and try the latest updates as soon as they are available.

Accessibility

Use dictation in the editor

You can now use your voice to dictate directly into the editor, provided that you have installed the VS Code Speech extension.