A Practical Approach to 'Secure Software Architecture' in Software Engineering

Time	Topic	Presenter & Overview
9:00-9:15	Coffee and chat	
9:15-9:30	Intro & housekeeping	**Peter Davis**
9:30-10:00	Making VSCode work for you and your students. A simple do-it-all IDE for all Software Engineering projects.	**Ben Jones** Overview of VSCode capabilities and teachers will set up a Python profile with helpful extensions for Python Flask.
10:00-10:20	Morning tea	
10:20-11:20	Overview of Python Flask	**Daniel Covassin & Ben Jones** An overview of the basics of FLASK focusing on its architecture, debugging and the built-in Janga2 template engine. Teachers develop a simple Flask app with a GET app route, template and partial.
11:20-12:45	Practical software security activities	**Ben Jones** Demonstration, discussion and testing of exploits/vulnerabilities listed in the syllabus. Teachers will test the different exploits on the Unsecured PWA and discuss/apply potential countermeasures.
12:45-13:15	Online Examinations Discussion	**Ben Tindale & Aimee Phillips** Consultation with teachers about setting up and running online examinations in schools.
13:15-13:40	Lunch	
13:40 - 14:40	Practical software security activities	**Daniel Covassin** Demonstration, discussion and testing of 'Broken Authentication and Session management'. Teachers will implement a login algorithm with two-factor authentication (2FA) to their Flask App.
14:40-15:00	GitHub demo	**Ben Jones** Overview of GitHub to support cloud-based programming and easily address collaboration syllabus content. Teachers will have an opportunity to open a GitHub account and deploy their app in a codespace.
15:00-15:40	Andrew Jackson, Manager Cyber Response and Digital Forensics ITD	**Andrew Jackson** Teachers will attend a presentation from Andrew Jackson, Manager of Cyber Response and Digital Forensics with the NSW Department of Education ITD. Andrew will share his real-world experience with concepts in our syllabus, including vulnerabilities, mitigations, and pen testing.
15:40-15:45	Evaluation and close	**Peter Davis**

Resources: https://github.com/TempeHS/Upkilling_for_SE_Teachers_Resources

Dependencies: VSCode (eT4L Software Catalogue or https://code.visualstudio.com/), Python (eT4L Software Catalogue or https://www.python.org/), Git (eT4L Software Catalogue or https://git-scm.com/), GitHub Desktop (eT4L Software Catalogue or https://desktop.github.com/download/)