

HTU ICTC6 Web Application Development using Python - Code Review Checklist

	Assessment Segment		Assessment Item	Points
<input type="checkbox"/>	Code Style (PEP8)	1	Use proper left margin alignments.	1
<input type="checkbox"/>		2	Continuation lines should align wrapped elements either vertically using Python's implicit line joining inside parentheses, brackets and braces, or using a hanging indent.	1
<input type="checkbox"/>		3	Use two blank lines to surround top-level function and class definitions.	1
<input type="checkbox"/>		4	Use a single blank line to surround method definitions inside a class.	1
<input type="checkbox"/>		5	Use blank lines in functions, sparingly, to indicate logical sections.	1
<input type="checkbox"/>		6	Use a descriptive naming style.	2
<input type="checkbox"/>		7	Ensure code block starting point and ending point are easily identifiable.	2
<input type="checkbox"/>		8	Ensure that the proper naming convention is used for your variables, classes, modules, etc.	2
<input type="checkbox"/>		9	Ensure proper code indentation. Use 4 spaces per indentation level.	1
<input type="checkbox"/>		10	Limit all lines to a maximum of 79 characters.	1
<input type="checkbox"/>		11	Avoid extraneous whitespace in the following situations. Avoid trailing whitespace anywhere.	2
<input type="checkbox"/>		12	Comments – How well is the code documented? <ul style="list-style-type: none"> • Comments that contradict the code are worse than no comments. • Always make a priority of keeping the comments up-to-date when the code changes. • Comments should be complete sentences. • Mark any pending work with WIP: (work in progress) or TODO: (To-Do). • Commented out code lines should be removed before committing changes to version control. 	5
<input type="checkbox"/>			Category Total	20
<input type="checkbox"/>	Design and Architecture (DaA)	1	Properly follows the Separation of Concerns (SoC) design principle. <ul style="list-style-type: none"> • Organise your code into smaller modules. Write your modules in separate files. • Improve your modularity through decoupling. 	10
<input type="checkbox"/>		2	Properly follows necessary design patterns.	3
<input type="checkbox"/>		3	Properly follows existing coding and technology patterns.	2
<input type="checkbox"/>		4	Properly follows the object-oriented analysis and design principles (SOLID). <ul style="list-style-type: none"> • Single Responsibility Principle (SRP) • Open Closed Principle (OCP) • Liskov Substitution Principle (LSP) • Interface Segregation Principle (ISP) • Dependency Inversion Principle (DIP) 	20
<input type="checkbox"/>			Category Total	35

	Assessment Segment		Assessment Item	Points
<input type="checkbox"/>	Coding Best Practices (CBP)	1	Maintainability — How easy it is to maintain your code? <ul style="list-style-type: none"> • Readability - How readable is the code? • Testability - How easy it is to test the code? • Debuggability - How easy it is to debug the code? • Configurability - How easy it is to configure the code? Use configuration values and files instead of hard coded values. 	10
<input type="checkbox"/>		2	Reusability — How reusable is the code? <ul style="list-style-type: none"> • Follow the DRY (Do not Repeat Yourself) principle: The same code should not be repeated more than twice. • Consider reusable services, functions and components. • Consider generic functions and classes. 	5
<input type="checkbox"/>		3	Reliability - How reliable is the code? <ul style="list-style-type: none"> • Does the code have proper exception handling? • Does the code deallocate unnecessary resources? 	5
<input type="checkbox"/>		4	Extensibility - How extensible is your code? <ul style="list-style-type: none"> • How easy it is to add new enhancements? • Components should be interchangeable. 	5
<input type="checkbox"/>		5	Security (for web applications) <ul style="list-style-type: none"> • Does your application include proper access, authentication, authorization techniques? • Does your application properly sanitize user input? (To avoid security threats such as SQL injections and Cross Site Scripting (XSS)) • Does your application properly encrypt and hash sensitive data? 	0
<input type="checkbox"/>		6	Performance <ul style="list-style-type: none"> • Use the datatype that best fits your needs. • Avoid the use of nested control structures (for, while, if). 	5
<input type="checkbox"/>		7	Scalability - How scalable is the code?	5
<input type="checkbox"/>		8	Usability - How easy is it for the use to use your application? <ul style="list-style-type: none"> • Make sure your application has easy to use navigation. • Properly format and align text. Use colours, fonts, icons, etc. • Properly configure keyboard shortcuts and default placeholders. 	5
<input type="checkbox"/>			Category Total	40
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>			Assessment Total	95
			Revision 1 - Wednesday, 25 November 2020	