

Assessment Brief



Subject Code and Name	DEV1003 - Advanced Applications
Assessment Number	1
Assessment Title	Planning & Design Documentation
Assessment Type	Group Written Submission
Words, Size or Duration	Wireframe diagrams, Entity Relationship Diagrams and 1000 words + / - 10%
Subject Learning Outcomes	SLO1, SLO2, SLO6
Submission Date / Time	Due by 11:55pm AEST Sunday end of Module 2.
Weighting	20%

Assessment Purpose

Modern software development projects - benefit from planning & design stages before software development begins. This can then be used to help inform a group of software developers about the project's needs and goals. Keeping developers "on the same page" about what the project needs helps everyone collaborate & work more efficiently.

To solidify your knowledge of modern software development concepts and show your ability to work with others effectively, you should be able to create documentation to show planning & design stages for a software development project.

Assessment Task / Item

For this assessment, you must submit an application that meets the design & content requirements to showcase your skills as a software developer.

Assessment Instructions

Planning & Design Documentation

Full-stack applications are large projects, and any decent large project will benefit from appropriate planning and documentation both before and during the development of that project.

Planning and documentation should be presentable enough that new developers or even project clients could read it and understand what is happening within the project. To that end, your planning documents should include the following content:

- Explanation of the planned software architecture of the project in terms of:
 - programming paradigm (eg. object-oriented, data-oriented, functional)
 - app architecture (eg. model-view-controller, microservices)
- Explanation of which software development methodologies will be used in the project, with specific focus on:
 - Project management methodology (eg. agile, waterfall)
 - Task management methodology (eg. kanban, scrum)
- Explanation of how client/server architecture works
- Explanation of how your project uses client/server architecture (eg. which frameworks go where? how do they communicate with each other?)
- At least one entity relationship diagram
- User stories
 - Addressing at least one user/persona
 - Addressing at least one need/justification
 - Addressing at least one want/feature/function
- Explanation of how ethical web development principles (such as principles found here: <https://www.ethicalweb.org/>) will be adhered to throughout the project
- Wireframes representing the intended application

Assessment Brief



Submission

All work must be submitted via Canvas, in the assignments section appropriate to this brief.

The **Planning & Design Documentation** submission must be made by one team member on behalf of the team. The **Peer Review** submission must be made by each individual team member.

Please ensure the above mentioned submission date and/or time are adhered to, or penalties may apply.

When submitting your work, please save your files using the naming convention below.

[Student_ID]_[Surname]_[First Name]_[SubjectCode]_[Assessment_#].pdf

E.g.: **1234_Singh_Visha_PRG1002_Assessment_01.pdf**

For more information on late submission, please see the **Assessment Policy**.

Academic Integrity

The integrity of the assessment process is fundamental for ensuring appropriate evaluation at AIT. All work submitted should be your own, and where additional resources are used, they must be referenced according to the Harvard style. Additionally, TurnItIn is available in the LMS to test plagiarism in your writing.

For more information on academic integrity, please see the Academic Integrity and Academic Integrity Penalties Policies.

Appeals

Fair application of the assessment rubric, rules and guidelines should be administered for each assessment. If you feel an evaluation requires further consideration, you may be entitled to an appeal.

For more information on your right to an appeal, please see the **Assessment Appeals Procedure and Policy**.

Policies

For access to the policies mentioned above and related to education at AIT, please see the [footer](#) of the AIT website, and follow the link named **Education Policies and Procedures**.

Website: <https://www.ait.edu.au>

Assessment Brief



Assessment Rubric

Task Descriptor	(HD) High Distinction (85-100%)	(D) Distinction (75-84%)	(C) Credit (65-74%)	(P) Pass (50-64%)	(F) Fail (0-49%)
<i>EXPLAINS a programming paradigm</i> 5% SLO 1	Provides a THOROUGH explanation of a programming paradigm, with MULTIPLE programming examples and AT LEAST ONE diagram.	Provides a THOROUGH explanation of a programming paradigm, with AT LEAST ONE programming example and AT LEAST ONE diagram.	Provides a DETAILED explanation of a programming paradigm, with AT LEAST ONE programming example OR diagram.	Provides a GENERAL OR VAGUE explanation of a programming paradigm.	Provided explanation is incorrect or invalid, or doesn't contain enough information to be considered an "explanation".
<i>EXPLAINS a software architecture pattern</i> 10% SLO 1	Provides a THOROUGH explanation of a software architecture pattern, with AT LEAST ONE programming example and MULTIPLE diagrams.	Provides a THOROUGH explanation of a software architecture pattern, with AT LEAST ONE programming example and AT LEAST ONE diagram.	Provides a DETAILED explanation of a software architecture pattern, with AT LEAST ONE programming example OR diagram.	Provides a GENERAL OR VAGUE explanation of a software architecture pattern.	Provided explanation is incorrect or invalid, or doesn't contain enough information to be considered an "explanation".
<i>EXPLAINS a project management methodology</i> 5% SLO 1	Provides a THOROUGH explanation of a project management methodology, with MULTIPLE diagrams and AT LEAST ONE example or scenario of how that methodology would be used.	Provides a THOROUGH explanation of a project management methodology, with AT LEAST ONE diagram.	Provides a GENERAL OR VAGUE explanation of a project management methodology, with MULTIPLE diagrams.	Provides a GENERAL OR VAGUE explanation of a project management methodology, with AT LEAST ONE diagram.	Provided explanation is incorrect or invalid, or doesn't contain enough information to be considered an "explanation".
<i>EXPLAINS a task management methodology</i> 10% SLO 1	Provides a THOROUGH explanation of a task management methodology, with MULTIPLE diagrams and AT LEAST ONE example or scenario of how that methodology would be used.	Provides a THOROUGH explanation of a task management methodology, with AT LEAST ONE diagram.	Provides a GENERAL OR VAGUE explanation of a task management methodology, with MULTIPLE diagrams.	Provides a GENERAL OR VAGUE explanation of a task management methodology, with AT LEAST ONE diagram.	Provided explanation is incorrect or invalid, or doesn't contain enough information to be considered an "explanation".

Assessment Brief

<p><i>EXPLAINS the fundamentals of software client/server architecture</i></p> <p>10%</p> <p>SLO 1, SLO 2</p>	<p>Provides a THOROUGH explanation on client/server architecture, including ALL of the topics listed: client/server communication, data distribution, feature distribution, authorization, validation. Explanation includes MULTIPLE diagrams and MULTIPLE references.</p>	<p>Provides a THOROUGH explanation on client/server architecture, including MOST of the topics listed: client/server communication, data distribution, feature distribution, authorization, validation. Explanation includes MULTIPLE diagrams OR references.</p>	<p>Provides a DETAILED explanation on client/server architecture, including MOST of the topics listed: client/server communication, data distribution, feature distribution, authorization, validation. Explanation includes AT LEAST ONE diagram or reference.</p>	<p>Provides a GENERAL OR VAGUE explanation on client/server architecture, including AT LEAST ONE of the topics listed: client/server communication, data distribution, feature distribution, authorization, validation.</p>	<p>Provided explanation doesn't address any of the required topics: client/server communication, data distribution, feature distribution, authorization, validation.</p>
<p><i>EXPLAINS a plan for implementing client/server architecture in a software project</i></p> <p>5%</p> <p>SLO 2</p>	<p>Provides a DETAILED plan on implementing client/server architecture in a project, including ALL of the topics listed: client/server communication, data distribution, data security, feature distribution, authorization, validation.</p>	<p>Provides a DETAILED plan on implementing client/server architecture in a project, including THREE of the topics listed: client/server communication, data distribution, data security, feature distribution, authorization, validation.</p>	<p>Provides a GENERAL plan on implementing client/server architecture in a project, including TWO of the topics listed: client/server communication, data distribution, data security, feature distribution, authorization, validation.</p>	<p>Provides a GENERAL plan on implementing client/server architecture in a project, including ONE of the topics listed: client/server communication, data distribution, data security, feature distribution, authorization, validation.</p>	<p>Fails to provide a plan for implementing client/server architecture in a project, or doesn't explain any of the required topics in the plan: client/server communication, data distribution, data security, feature distribution, authorization, validation.</p>
<p><i>OPTIMISES an entity relationship diagram to a standard format</i></p> <p>5%</p> <p>SLO 6</p>	<p>ERD depicts database normalisation at 3NF or another suitably-complex normalisation form such as Boyce-Codd or 4NF.</p>	<p>ERD depicts database normalisation mostly in 3NF, with some entities still depicting 2NF.</p>	<p>ERD depicts database normalisation in 2NF, and may include some entities still depicting 1NF.</p>	<p>ERD depicts database normalisation in 1NF.</p>	<p>ERD does not depict or attempt any database normalisation, or the ERD represents data at ONF.</p>
<p><i>DESIGNS user stories appropriate to a web development project to a professional level.</i></p> <p>10%</p> <p>SLO 6</p>	<p>Valid, sensible and clear user stories for AT LEAST THREE different users or personas, using AT LEAST THREE different reasons or justifications, for AT</p>	<p>Valid, sensible and clear user stories for AT LEAST TWO different users or personas, using AT LEAST TWO different reasons or justifications, for AT</p>	<p>Valid, sensible and clear user stories for AT LEAST TWO different users or personas, using AT LEAST TWO different reasons or justifications, for AT</p>	<p>Valid, sensible and clear user stories for AT LEAST ONE different users or personas, using AT LEAST ONE different reasons or justifications, for AT</p>	<p>User stories provided are either invalid, unclear, nonsensical, or don't address a specific user, reason or app function.</p>

Assessment Brief



	LEAST FOUR different wants, features or functionalities.	LEAST THREE different wants, features or functionalities.	LEAST TWO different wants, features or functionalities.	LEAST ONE different wants, features or functionalities.	
<i>EXPLAINS</i> how ethical web development principles will be applied to a project. 5% SLO 1, SLO 6	Explanation of how AT LEAST FOUR ethical web development principles will be adhered to is provided with GREAT DETAIL, including references to tools or systems to help adhere to those principles.	Explanation of how AT LEAST THREE ethical web development principles will be adhered to is provided with GREAT DETAIL, including references to tools or systems to help adhere to those principles.	Explanation of how AT LEAST TWO ethical web development principles will be adhered to is provided with GREAT DETAIL, including references to tools or systems to help adhere to those principles.	Explanation of how AT LEAST ONE ethical web development principles will be adhered to is provided with GENERALISED OR LOW DETAIL.	Does NOT explain how any ethical web development principles will be adhered to for a project, or explanations provided are based on incorrect understandings of the principles.
<i>DESIGNS</i> a set of wireframes appropriate for a responsive website. 10% SLO 6	MORE THAN FIVE DETAILED AND WELL-DESIGNED wireframes provided, for SEVERAL different device types (as required for the app).	FIVE DETAILED AND SOLIDLY-DESIGNED wireframes provided, for SEVERAL different device types (as required for the app).	FIVE wireframes provided, for TWO different device types (as required for the app).	LESS THAN FIVE wireframes provided, for TWO different device types (as required for the app).	Inadequate wireframes provided, or does not create wireframes for more than one device type.
<i>COLLABORATES</i> professionally and efficiently with a team during a project. 20% SLO 5, SLO 6	Project work performed EXCEPTIONALLY within a team, contributing to the work to a HIGH degree and communicating with the team to solve problems EXTREMELY EFFICIENTLY.	Project work performed VERY WELL within a team, contributing to the work to a MODERATE degree and communicating with the team to solve problems EFFICIENTLY.	Project work performed WELL within a team, contributing to the work to a MODERATE degree and communicating with the team to solve problems SOMEWHAT EFFICIENTLY.	Project work performed WELL within a team, contributing to the work to a SMALL degree and communicating with the team to solve problems SPORADICALLY.	Contribution to the project is non-existent, struggles to work as a team member, or doesn't solve any problems within a team.