



# GTPI302 Guided Learning My Learning Contract

to be included in E-Portfolio  
(revised on Oct 2024)

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Learning Project Title:	<p>Please refine the title as needed and indicate the name of competition/certification if applicable. Note: This title is not the name of your event / book / invention</p> <p>Mobile Application Development – WorldSkills Training</p>										
Brief Description of your project	<p>What am I going to do?</p> <p>To prepare for the Worldskills Singapore Round 2025, I will develop a mobile application, aligning with three of my graded modules as well as take part in the Worldskills Internal Qualifying Round 2025 at Temasek Polytechnic. This project will also include extensive self-directed learning to build the necessary skillsets for the competition.</p>										
My Learning Goals	<p>Refine Learning Goals as needed: E.g. to work on my marketing skills.</p> <ol style="list-style-type: none"> <li>1. Deepen my technical skills in mobile application development, emphasising quality over quantity</li> <li>2. Practice resilience and discipline, especially in a project so reliant on personal determination</li> <li>3. Strengthen my weaknesses such as backend development skills through team collaboration</li> </ol>										
	<p>My project will help me cultivate these TP Student Profile attributes (choose at least three)</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Self-directed</td> <td><input checked="" type="checkbox"/> Problem solving</td> <td><input type="checkbox"/> Character &amp; citizenship</td> </tr> <tr> <td><input checked="" type="checkbox"/> Resilient</td> <td><input checked="" type="checkbox"/> Digital &amp; information literate</td> <td><input type="checkbox"/> Leadership</td> </tr> <tr> <td><input checked="" type="checkbox"/> Competent</td> <td><input type="checkbox"/> Innovative &amp; entrepreneurial</td> <td><input type="checkbox"/> Communicative &amp; collaborative</td> </tr> </table>		<input checked="" type="checkbox"/> Self-directed	<input checked="" type="checkbox"/> Problem solving	<input type="checkbox"/> Character & citizenship	<input checked="" type="checkbox"/> Resilient	<input checked="" type="checkbox"/> Digital & information literate	<input type="checkbox"/> Leadership	<input checked="" type="checkbox"/> Competent	<input type="checkbox"/> Innovative & entrepreneurial	<input type="checkbox"/> Communicative & collaborative
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	<p>Give reasons how you can develop each of these chosen attributes</p> <p>Self-directed : Three graded modules will be incorporated into this training such that I'll need to complete the syllabus independently. Alongside this flexibility in the schedule, I have to practice discipline; I will set personal deadlines and goals to ensure effective learning.</p> <p>Problem Solving: Since this will be an individual competition, a lot of my projects and practices also involve individual work. This will enhance my ability to troubleshoot and debug without external support.</p> <p>Digital &amp; Information Literate: The training process requires substantial research, especially with Jetpack Compose, the UI framework I'm using, being relatively new. This will build my ability to independently explore and apply emerging tools online.</p>										
Target beneficiary/ beneficiaries (if applicable):	Nil										

<b>Plan your learning;</b>  <b>how do you achieve your own learning goals?</b>	<b>What do I already know/do in this area?</b>  Basic Idea of building a Mobile Application using Kotlin and Jetpack Compose <ul style="list-style-type: none"> <li>- Implementing CRUD functions with RESTful API Integration</li> <li>- Prototyping with AdobeXD</li> <li>- Proper App Navigation and Routing</li> <li>- Integrating external databases</li> <li>- Implementing user authentication, authorisation, and roles</li> <li>- Personalising the application on user preferences</li> </ul>
	<b>What new knowledge &amp; skills will I need to complete this project?</b>  New knowledge needed: <ul style="list-style-type: none"> <li>- Prototyping with Figma</li> <li>- Understanding IoT devices and sensor integration</li> <li>- Understanding DevOps essentials and CI/CD pipeline integration for automated deployment</li> <li>- A more in-depth understanding of AWS services</li> <li>- Integrating internal databases</li> </ul>
	New Skills needed: <ul style="list-style-type: none"> <li>- Minimising reliance on third-party plugins</li> <li>- Reducing dependency on constant internet connection</li> </ul>
	<b>What possible challenges would I need to overcome for my learning project?</b> <ul style="list-style-type: none"> <li>- Managing time effectively, avoiding overestimation or underestimation of workload</li> <li>- Maintaining motivation to prevent procrastination and last-minute rushing</li> <li>- Minimising time spent on excessive debugging – Focusing on implementing the important functionalities over the little details that are not necessary for this project (Priority Management)</li> <li>- Handling any unexpected learning curves before/during the project</li> <li>- Understanding new complex concepts that could lead to lengthy troubleshooting</li> <li>- Resolving git merge conflicts</li> </ul>
	I plan to get help from: <b>Please tick and name the specific organisation(s)/expert(s) you would consult, include designation, names, telephone numbers and email</b> <div> <input type="checkbox"/> Partner departments in TP: _____         </div> <div> <input type="checkbox"/> Partner Schools in TP: _____         </div> <div> <input type="checkbox"/> External Partner Organisation: _____         </div> <div> <input type="checkbox"/> External Resource People: _____         </div> <div> <input checked="" type="checkbox"/> Others: _____ Online Learning Resources (Below)         </div>
I plan to use these learning resources: <b>Please tick and name the resources you would use.</b> <div> <input checked="" type="checkbox"/> Books/newspapers: _____ Computing Books (Logic Revision)         </div> <div> <input checked="" type="checkbox"/> Online learning/courses: _____ Udemy, LinkedIn Learning         </div> <div> <input checked="" type="checkbox"/> Internet journals/articles: _____ Medium, Stack Overflow, Geeks4Geeks         </div> <div> <input type="checkbox"/> Experiential learning: _____         </div> <div> <input checked="" type="checkbox"/> Documentaries/videos: _____ YouTube         </div> <div> <input type="checkbox"/> Others (e.g. seminars, interviews, performances, lectures, workshops)         </div>	

Action Plan Timelines & Deliverables	Week	Actions	Deliverables
	Plan for the entire semester on a weekly basis	Specify the actions you will be taking to complete your project throughout the semester	Specify concrete and tangible deliverables you will produce
	Week 1	-Complete the Syllabus for DevOps Essentials	
	Week 2	-Complete the Syllabus for IoT Application Development	-Consultation 1- PLAN - Discuss Project Specs, Deliverables and Course of Action
	Week 3 (Campus Lockdown)	-Complete the Syllabus for Full Stack Web Development -Finalise Learning Contract -High-Fi Prototype Draft	-Learning Contract -Learning Log #1
	Week 4 (Flex Week 1)	-Determine the Outline for my E-Portfolio -Proposal -Mobile Application Development -WS IQR Practice Paper -SDL Report Research – ROOMS Database	
	Week 5	-Mobile Application Development -WS IQR Practice Paper -SDL Report Research – ROOMS Database	-Consultation 2 – PERFORM - Discuss Proposal -Learning Log #2
	Week 6	-Mobile Application Development -WS IQR Practice Paper -Physical Lesson for IoT -E-Portfolio Base Files	
	Week 7	-Mobile Application Development -WS IQR Practice Paper -Physical Lesson for IoT	-E-Portfolio Workshop
	Week 8	-Mobile Application Development -WS IQR Practice Paper	
	Week 9 (Term Test Week)	-Mobile Application Development -WS IQR Practice Paper -Finalise SDL Report -Update Proposal Accordingly -Continue E-Portfolio	-Consultation 3 – MONITOR - Progress Check-In: SDL Report, Updated Proposal, E-Portfolio Progress, Learning Logs Update -Learning Log #3
	Week10 (Term Break)	-Mobile Application Development -WS IQR Practice Paper	
	Week 11 (Term Break)	-Mobile Application Development -WS IQR Practice Paper	
	Week 12 (Term Break)	-Mobile Application Development -WS IQR Practice Paper	-Consultation 4 – MONITOR Progress Check-In -Learning Log #4
	Week 13	WORLDSKILLS INTERNAL QUALIFYING ROUND	WORLDSKILLS INTERNAL QUALIFYING ROUND
	Week 14	-Physical Lesson for IoT	
	Week 15		
	Week 16 (Flex Week 2)	-Refine High-Fi Prototype -Finalise PowerPoint Slides	-Consultation 5 – REFLECT - Progress Check-In for both Mobile Application Development and E-Portfolio Review + Oral Interview Preparation -Learning Log #5
	Week 17	-Deadline for Mobile Application -Conduct Test Report with Classmate	-Oral Interview -Proposal

	<p>-Mobile Application Source Code -PowerPoint Presentation Slides -SDL Report</p> <p>Week 18      -Test Report (Collaboration with Peers in Worldskills Training) -E-Portfolio</p> <p>-Test Report -E-Portfolio – GitHub Pages</p> <p>Please customise if your project commences prior to the regular semester timeframe.</p>
<p><b>Plan your E-portfolio;</b></p> <p><b>Learning evidence for E-portfolio</b></p>	<p><b>What do you include in your E-portfolio?</b> e.g. Report, prototype, checklist, glossary of terms, reflection, draft designs, surveys, survey analyses, interview transcripts, etc. (50-100 words).</p> <p><i>Introduction</i></p> <ul style="list-style-type: none"> <li>- Self-Introduction</li> <li>- Profile Photo</li> <li>- Intro to Guided Learning Project</li> <li>- Intro to and background information on my own Learning Project</li> </ul> <p><i>Content Page</i></p> <p><i>Proposal</i></p> <ul style="list-style-type: none"> <li>- Accepted Proposal</li> <li>- Refined Proposal</li> <li>- Learning Contract + Progress Chart in forms of Gantt Chart or milestone progress report</li> </ul> <p><i>Deliverables Based on Learning Contract</i></p> <ul style="list-style-type: none"> <li>- Mobile Application Proposal</li> <li>- Interactive High-Fi Prototype</li> <li>- PowerPoint Presentation Slides</li> <li>- Test Report</li> <li>- SDL Report</li> <li>- Certificates obtained based on the online learning resources</li> <li>- Self-Directed Learnings – Reflection after each one / Notes Summaries</li> <li>- Evidence of learning</li> </ul> <p><i>Learning Logs</i></p> <ul style="list-style-type: none"> <li>- 4 Learning Logs</li> </ul> <p><i>Overall Reflection</i></p>