ASSESSMENT COVERSHEET

Attach this coversheet as the cover of your submission. All sections must be completed.

Section A: Submission Details

Programme	:	BACHELOR IN SOFTWARE ENGINEERING
Course Code & Name	:	ISB37904 – SOFTWARE QUALITY AND CONFIGURATION MANAGEMENT
Course Lecturer(s)	:	Ts. Dr. AZALIZA ZAINAL
Submission Title	:	EXERCISE CHAPTER 5
Deadline	:	Day 25 Month APRIL Year 2025 Time 11:59PM
Penalties	:	• 5% will be deducted per day to a maximum of four (4) working days, after which the submission will **not** be accepted. • Plagiarised work is an Academic Offence in University Rules & Regulations and will be penalised accordingly.

Section B: Academic Integrity

Tick (√) each box below if you agree:

/	I have read and understood the UniKL's policy on Plagiarism in University Rules & Regulations.
/	This submission is my own, unless indicated with proper referencing.
/	This submission has not been previously submitted or published.
/	This submission follows the requirements stated in the course.

Section C: Submission Receipt

(must be filled in manually)

Office Receipt of Submission

Date & Time of Submission (stamp)	Student Name(s)	Student ID(s)
25 APRIL 2025 11:59 PM	MUHAMMAD LATIFF DANIEYAL BIN RIZAL NIK FAREES BIN NIK FAIZAL MUHAMMAD SYAHMI BIN MOHAMAD ZAID NUR ASYIKIN BINTI OTHMAN	52213122135 52213122188 52213122384 52213122032

Student Receipt of Submission

This is your submission receipt, the only accepted evidence that you have submitted your work. After this is stamped by the appointed staff & filled in, cut along the dotted lines above & retain this for your record.

Date & Time of Submission (stamp)	Course Code	Submission Title	Student ID(s) & Signature(s)
25 APRIL 2025 11:59 PM	ISB37904	EXERCISE CHAPTER 5	52213122135, LATIFF 52213122188, FAREES 52213122384, SYAHMI 52213122032, SYIKIN

This is **group work exercise**.
Refer slide 12 and 13 chapter 5.

1.Software Quality Standards—How and Why We Applied ISO 25010 (https://www.monterail.com/blog/software-qa-standards-iso-25010)
2.Quality Assurance Basics. Proper QA for your Agile projects (https://www.monterail.com/blog/2016/quality-assurance-basics-proper-qa-for-your-agile-projects)

1. Read about the company and summarizes about the company
2. Describe the differences between ISO/IEC 25010, ISO/IEC 9126 and ISTQB.
3. Summarizes how they identify the quality requirements of the apps.
4. What can you learn from their experience about software quality in general and how they use the standards to define quality requirements of the system to be built
5. What are the elements to describe features/requirements of a system?
6. Describe the elements needed when reporting bugs.

1. About the Company: Monterail

Monterail is a Poland-based software development company specializing in custom web and mobile applications. With a strong emphasis on quality and agility, Monterail partners closely with clients to build tailored digital solutions that align with business goals.

Their integrated approach combines UX/UI design, frontend and backend development, and product strategy, ensuring seamless project execution from concept to launch.

Key Highlights:

- **Location:** Headquartered in Wrocław, Poland
- **Expertise:** Web & mobile application development for startups, SMBs, and enterprises
- **Methodology:** Agile development with iterative feedback and collaboration
- **Design-Driven:** Emphasis on intuitive and engaging user experiences
- **Technology Stack:** JavaScript, Ruby on Rails, Vue.js, React, and more
- **Quality Assurance:** Adheres to industry standards like ISO/IEC 25010 to ensure software reliability, maintainability, and performance
- **Client Approach:** Transparent communication and long-term partnerships focused on value delivery

What distinguishes Monterail is its commitment to software excellence, collaborative culture, and alignment with international quality benchmarks.

2. Differences in ISO/IEC 25010 vs ISO/IEC 9126 vs ISTQB

Standard	Focus Area
ISO/IEC 9126	Legacy standard for software quality
ISO/IEC 25010	Current standard for software quality
ISTQB	Testing certification and knowledge base

Summary:

- **ISO/IEC 9126** has been replaced by 25010 and is no longer in use.
- **ISO/IEC 25010** is the current and most comprehensive model for evaluating software quality.
- **ISTQB** is a certification framework for testers—not a quality standard, but a guide for best practices in testing.

3. How Monterail Identifies Quality Requirements

Monterail uses the **ISO/IEC 25010 model** to define quality attributes through:

- **Collaborative Workshops:**
  Engaging stakeholders to set clear expectations for attributes like usability, performance, security, and maintainability.

- **User Stories & Acceptance Criteria:**
  Translating these attributes into agile workflows with specific, measurable criteria.

Example:

- Rather than stating "the app should be fast," they specify: *"the dashboard should load in under 2 seconds on an average network."*

4. What We Learn from Monterail's Experience

From Monterail's use of ISO 25010:

- **Quality** is built into the process, not added later.
- **ISO/IEC 25010** helps align expectations across teams and clients.
- **Clear quality attributes** prevent vague requirements and miscommunication.
- **Standards** provide structure and consistency. It's essential in agile workflows.

Monterail proves that **standard-driven quality** is both practical and scalable in fast-paced development.

5. Elements to Describe Features/Requirements of a System

According to best practices and standards:

- **Functional Requirements**:
  Define *what* the system should do (e.g., user login, report generation)

- **Non-Functional Requirements**:
  Define *how* the system performs (e.g., response time, security, scalability).

- **User Stories**:
  Agile format capturing user needs: *As a [user], I want [feature], so that [goal].*

- **Acceptance Criteria**:
  Clear, testable conditions that determine if a feature meets expectations.

- **Use Cases**:
  Describe user to system interactions step-by-step, covering all scenarios.

- **Quality Attributes (ISO/IEC 25010)**:
  Define measurable qualities like usability, reliability, performance, maintainability, and security.

6. Elements Needed When Reporting Bugs

When reporting bugs, a complete and clear report should include:

- **Title/Summary:**
  Clear, concise description of the issue.

- **Steps to Reproduce:**
  Exact, repeatable steps to trigger the bug.

- **Expected vs. Actual Result:**
  What was supposed to happen vs. what actually happened.

- **Evidence:**
  Include screenshots, screen recordings, console logs, or error messages.

- **Severity & Priority:**
  Indicate impact (e.g., blocker, minor) and urgency for resolution.

- **Environment Details:**
  Specify device, OS, browser, app version, and any relevant settings.