# CLASS-1 Course Settings and Requirements

## Course Learning Outcome

- Integrate knowledge in each domain and apply to multi-tier architecture system
- 2. Analyze and design by follow the project requirements
- 3. Use and apply studied technical concepts and practices in the core information technologies

## Concepts

- Adopt Agile/Scrum methodology (partial)
- O Same main requirements
- O Semi-guided development
- O Weekly schedule
- Advisor is part of the team
- Value team learning, team working, team communications, and testing

#### Deliverables

- O Working software on development server
- O Project management:
  - O real-time task board
  - O daily meeting recordings
- O Technical documents as required by each clinic

#### Evaluation

- O Working software: 60%
  - O UAT
  - O Depends on the amount of PBI completed
- O Technical (quality and understanding): 40%
  - O Client-side 10%
  - O Server-side 10%
  - O DevOps/Infra/Integration 10%
  - O Project management 10%
    - Team communications (daily meeting, meeting with advisor, amount of communications)
    - Team planning (task board)
    - Meeting the schedule
    - O Team work

Each team member must contribute at least 30% or the individual score will be penalized accordingly.

#### Examination

#### O Working software:

- O (UAT) Evaluate weekly by advisor
- If the PBI committed is incomplete, it can be evaluated again in later weeks.
  - O However, it will slightly affect team's project management score
  - O Make sure to plan and commit your weekly work prior to development

#### O Technical:

- O 29–30 May 2024 (tentative)
  - O Client-side
  - O Server-side
  - DevOps/Infra/Integration

#### Work Ethics

- O Do not claim other people work as one own
- May get help from others but make sure you understand your own work
- O The understanding will be verified during technical exam
  - O unethical work such as using other people work or faking working software with mock up of page/data will be penalized

#### Team Work

- O Work together vs dividing work
- Avoid teams with individual roles. Why?
- Swarming: team members with available capacity gather to work on an item to finish what has already been started before moving ahead to start work on new items (PBI)
- Each team member should contribute to the project each week and thus must have development work

# Pair Programming



By Lisamarie Babik - Ted & Description of the Edward of th

- Code by one and review by another
- O Better code
- Better design
- Promote collective ownership and sharing of knowledge/skills

## Help / Support

- O Yourself: study, search, try
  - O aware of the amount of time spent
- Team: each should support other members
- Other teams: may encountered the same problem and found solutions
- O Advisor: give guidelines
- O Clinics:



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General

Back-End Clinic

**Business Requirements** 

**Database Clinic** 

DevOps-Infra Clinic

Front-End Clinic

#### Advisor Roles

- Monitor team progress and each team member
- Give feedbacks and guidance to ensure successful outcomes
- Supervise and record team's weekly commitment
  - O Team must commit by the first day of each sprint
- Perform UAT and Project Management evaluation

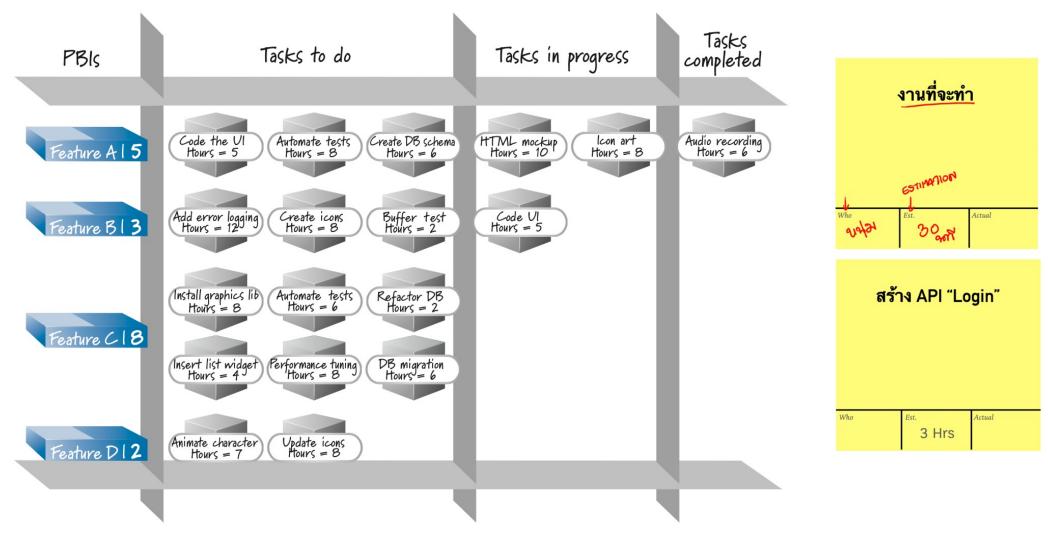
## Daily Meeting

- O Inspect progress toward the Sprint Goal
- O 3 common questions
  - O What have I done since last meeting?
  - O What am I working on today?
  - O What problems are preventing me from achieving this?
- Onsite/Virtual face-to-face meeting
  - O each member turn on camera
  - O should be less than 5 minutes each
  - o at least 4 days/week
  - O record the meeting for advisor to view later
    - O store in agreed location, e.g. private meeting files section
    - O named in appropriately, e.g. OR-1-daily-20240417.mp4

## Daily Meeting Guideline

- O Be concise and brief!
  - discussion after the daily meeting (if it takes longer than 5 minutes)
- O Takes turn: one person at a time 3 questions
  - O or one question at a time: 3 rounds
- O Make regular schedule
  - O do not wait until the work is completed
  - O report progress
- O Include helping others, study ...

#### Task Board



O JIRA, Trello, Clickup, Monday, Github Project

#### Task Board Guideline

- O Must-have lists: To-do, doing, done
- Assign member to task
  - O during planning
  - O when team member is available
  - may specify who is responsible for this task, who helps with brainstorm/review in info
  - O may specify more than 1 member if work together
- O Add related artefacts
  - O +output, e.g. API specification
  - O links or files

## (Nonfunctional) Business Requirements

- O IT-Bangmod Kradan Kanban (ITB-Kradan Kanban, ITB-KK)
  - Release 1
  - There is only one Kradan (task board).
  - O Development team is the owner of the Kradan.
  - There is no user authentication/authorization support yet, anyone with access to the system can view and modify the board.
  - The board must be accessible from within KMUTT network (but not limited to).
  - O The system uses UTF-8 character-encoding.
  - The system supports ICT (Asia/Bangkok) time-zone.

#### Product Backlog

- 1 VIEW-TASK-TABLE VIEW
- 2 VIEW-TASK-DETAIL
- 3 ADD-TASK-BASIC
- 4 DELETE-TASK
- 5 EDIT-TASK-BASIC
- 6 ADD-STATUS
- 7 EDIT-STATUS
- 8 DELETE-STATUS
- 9 NESTED-PUBLIC-PATH
- 10 SORT-TASK-BY-STATUS-TABLE-VIEW
- 11 FILTER-TASK-BY-STATUS-TABLE-VIEW
- 12 LIMIT-TASKS-IN-STATUS
- 13 VALIDATE-INPUT-FE-BASIC
- 14 VALIDATE-INPUT-BE-BASIC

- Release-Level Priority
- The priority is modified to accommodate for the level of difficulties of each PBI

- Must-have
- Should-have
- Could-have

## task Attributes: v1 [PBI1–PBI5]

Attribute Name	Description / Constraints	Example
taskTitle	Task name : UTF-8 TEXT; Limit to 100 characters; NOT NULL; NOT EMPTY; Leading and trailing whitespaces are allowed;	design API specs for PBI1–2
taskDescription	Task description : UTF-8 TEXT; Limit to 500 characters; OPTIONAL; NOT EMPTY; Leading and trailing whitespaces are allowed;	need to specify endpoints, request body, response body, status
taskAssignees	Task assignees: UTF-8 TEXT; Limit to 30 characters; OPTIONAL; NOT EMPTY; Leading and trailing whitespaces are trimmed.	Pang; Pong;
taskStatus	Task status : ENUM of {No Status, To Do, Doing, Done}; NOT NULL; The default value is 'No Status';	To Do
createdOn	Task creation date/time (on DBMS) : DATETIME; NOT NULL;	2024-04-19 01:00:00
updatedOn	Task last update date/time (on DBMS): DATETIME; When a task is created, updatedOn is the same as createdOn; NOT NULL;	2024-04-19 01:00:00

## Schedule

Week	Work
1   Apr 17 – 22	Pre-game: design, plan, env prep
2   Apr 23 – Apr 29	Sprint 1
3   Apr 30 - May 6	Sprint 2
4   May 7 -13	Sprint 3
5   May 14 - 20	Sprint 4
6   May 29 - 30	Technical Exams (Tentative)

# Nominal Sprint 1 Goals

PBI#	PBI NAME	PBI DESCRIPTION / CONDITIONS
1	VIEW-TASK-TABLE VIEW	<ol> <li>List all task in table view, with no pagination.</li> <li>The table shows task: Title, Assignees, Status.</li> <li>The task is sorted ascending order of created time.</li> <li>If there is no task in the board, a table with no record is shown.</li> </ol>
2	VIEW-TASK-DETAIL	<ol> <li>When the user click on task's title, the task's detail is shown in a modal window.</li> <li>Task's detail includes Title, Description, Assignees, Status, Created date, and Updated date.</li> <li>If task's description is null or empty, the statement 'No description provided' is shown in italic and grey.</li> <li>The dates are shown in local timezone (with timezone identifier such as 'Asia/Bangkok')</li> <li>If the requested task (id) does not exist, the backend returns status code 404 and the frontend redirects to previous page.</li> </ol>

#### Week 1 Tasks

- Discuss with advisor on how to work together, communication channel, meeting schedule, ...
- O Design infrastructure architecture
- Design communications between client and server: protocol, message type, ...
- O Design API specifications
- Design software architecture
- O Design DB
- O Setup dev env
  - git repo, task board, communication channels
  - O IDE, localhost servers
- Setup dev server
- (Create Sprint 1 wireframes and discuss with advisor)
- O (Prepare data/test cases/test scripts for Sprint 1)
- Spike/PoC for Sprint 1
- plan with advisor on what will be committed in Sprint 1 (Sprint goals)

## Technical Spike

- Knowledge acquisition
- Help with estimation and planning
- O Answers:
  - O how (to store/send/receive date/time)
  - which (data type should we use for date/time)
- O May create PoC, Prototype
- O Week 1 Spike
  - date/time/time-zone (client: display, DB: type)
  - createdOn, updatedOn (DB)
  - O UTF-8 (DB, Infra)