Life is Possible - 生命教育 手機程式工作坊

PWA Apps workshop intro

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Aims

1. Enlighten students interested in STEM-related fields.

2. Able to code a simple website / apps / PWA.

3. Understand how coding works and critical thinking.

Perquisites

1. Basic knowledge of controlling computers (Windows / MacOS or Linux)

2. Interest in web technology / coding

3. Basic HTML / ICT / Coding knowledge is a plus (Not a must)

High level Outputs

1. Able to perform actions in coding IDE.

2. Basic coding skill in high level languages.

3. Learn server deployment process.

4. Edge knowledge of what is a programmer / software engineer.

5. Develop critical thinking and creativity.

Details Outputs

1. Able to use an IDE `VS code` to code.

2. Understanding what is coding and what are programmers duties.

3. Basic coding in high levels languages `(JS / HTML / CSS)`.

4. Import `bulma` and other framework to enhance the UI / UX.

5. Using `Github` and `Github Desktop` for co-op and version control.

6. Using `Vercel` or `Netlify` to deploy PWA.

Details

Languages:

- Materials in English
- Tutoring / Talks in Cantonese

Period:

- Total 7 lectures + 3 project lectures (10 days)
- Every Saturday week day starting from 15/04/2023 in 1400 - 1600
- Lecture arrangement: 2 * 7 hours (1 hour lecture + 45 hour lab, 15 mins breaks)
- Project lectures arrangement: 2 * 3 hours team project time

Schedule

Period: 1400 - 1600 each saturday

Lessons	Title	Descriptions	Date
1	Introduce to Programming	Prepare lessons for future learning	15/04/2023
2	Introduce to HTML	HTML conecpts and coding	22/04/2023
3	Introduce to CSS and bulma	CSS conecpts and coding	29/04/2023
4	Introduce to JavaScript	JavaScript conecpts and coding	06/05/2023

Lessons	Title	Descriptions	Date
5	Interact JS in HTML	Using javascript in HTML	13/05/2023
6	Adv topic - Github, deployment, planning	Learn to use Github desktop, deployment tools and planning	20/05/2023
7	Project Week 1 (Buffer) / Bonus lecture	For tutoring and doing project	27/05/2023
8	Project Week 2	For tutoring and doing project	03/06/2023
9	Project Week 3	For tutoring and doing project	10/06/2023
10	Showcase	Demo project	17/06/2023

Project lectures arrangement

2 to 3 student will be in a group, and the following 3 weeks will be the project period. A PWA will be developed and deploy to Vercel for publics to access.

Project lectures arrangement

- **Group members**: 2 to 4 student Free grouping

- **Period**: 3 weeks (Mostly in lecture time => 6 hours)

- **Presentations**: Week 10

- **Topics**: 生命教育 / 珍惜生命 / 其他 Choose one

1. Each person should done at least 2 pages
   (2 ppl group = > 4 pages)
   (3 ppl group = > 6 pages)

2. The PWA must have a `index.html` for home pages and others pages for the remaining content.

3. For the PWA, you should design the web that assume most users are using `iphone`, `android phone` and `ipad`.

4. Student should **work on the same repository** instead of each student have their own repository.

5. Student should plan the website structure, theme, page, features and style before codings.

6. `Mobile responsive` is not a must but better have it for the sake of user experiences and UI.

7. Each group should be deploy the PWA in `vercel`

8. Gropus should ensure the deployed PWA works as expected (`Valid links`, `workable functions`, `no dead images and href` ect...)

9. Tutor / TA may help for deploying apps / web to Google play store.

Overview skills to learn

PWA skills

- `HTML5` , `CSS` , `Javascript`

Deployment / management skills

- `Github` / `Guthub Desktop` (Management)
- `Vercel` (Deployment)

Softs skills

- `Communications` & `teamwork`
- `Critical thinking` & `logical thinking`

Scoring list

Score by tutors and TA's

Total 100 + 10 Bonus (Max 100)

1. Content (25%)

2. Creative / Design (25%)

3. Team-work & communications (25%)

4. Tech Skills (15%)

5. Presentations (10%)

6. Bonus (10% Bonus, Max 10%)

1. Content (25%)

- Great ideas and topics (10% - 0%)

- Interesting / Interactive with regarding content (15% - 0%)

2. Creative / Design (25%)

- Great UI layout / Creative ideas (10% - 0%)

- Great UX design (10% - 0%)

- With proper images / video / gif / icon usgae (5% - 0%)

3. Team-work & communications (25%)

- Each person should done at least 2 pages (5%)

- Whole group finished the project (10% - 0%)

- Great team atmosphere (10% - 0%)

4. Tech Skills (15%)

- Using Github and Github desktop / git in the project (5% / 0%)

- Using Vercel to deploy the project (5% / 0%)

- Using all javascript / html / CSS in the project (5% / 0%)

5. Presentations (10%)

- All teammate present the regarding pages (5%)

- Great presentations performances (5% - 0%)

6. Bonus (10% Bonus, Max 10%)

- Using tech that did not cover in the lecture (e.g AOC, animate.css, sweet alert2 ...) (0 - 10 %)

- Adapt other framework in the project (0 - 10 %)

Score rank

We will give the top 2 groups several award for encouragement.

Output demo

See `project/demo-project/README.md` for more info.

End