CMGT 1.3 UI-UX Process Report

2023

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# Assignment 1: Web

## Lab 1

### Research and analyses

#### Website URL

|  |
| --- |
| <https://kemkes.go.id/> |

|  |
| --- |
|  |

### Self-assessment

|  |  |
| --- | --- |
| **Interaction Design Principles** | **What do you notice?**  Describe either a good or bad application |
| **1. Visibility** | The website has a mostly great contrast between backgrounds and interactive elements (text, buttons list items, etc) making it easy for users to discern between elements. Nit-picking some elements, some part of the site contains poor color contrast that is non-WCAG AA compliant between background and foreground (Deep blue against deep green).  While the primary content of the website is black text on a white background, the websites use too many primary color hues to highlight headings and landmarks, making some elements feel distracting.  On a modern desktop screen (1080p) without any zoom, the website already displays a borderline adequate size for most elements for it to be legible without extra need of magnification. The size of most text content only contains 1 single font size which is non-WCAG AA compliant for small text (14px vs. 14pt = 18.5px). |
| **2. Feedback** | The website has acceptable loading speed and TTI. Though sometimes, it looks like the server is inconsistently unresponsive, having more than 10 seconds of TTFB. Peeking more to the site’s functionality, a lot of the website’s content are animated with transitions which duration feels too long. Also, it seems like the longer I stay on the site, the slower it becomes, hinting that there might be a memory leak issue.  Being a government’s ministry of health website, it lacks clarity whether the website is a public facing website or a private one, containing quick “hot links” to what seems to be confidential / internal sites. Also, some non-related health information seems to be displayed in the front page of the app including balance sheet, budget realization, etc.  It seems like most of the site’s content are thrown together quickly on a CMS as most information entries contain multi-sub-pages of links. |
| **3. Constraints** | It would seem like a lot of rarely-used, but available function of the app are broken. For example, article social share buttons that are available but with broken functionality, advertised “special feature” section in the sidebar which contains a lot of dead / invalid links, etc.  The image carousel on the frontpage of the website allows for non-standard behavior where the carousel are animated horizontally but allows for manual movement vertically. |

### Design requirements

|  |
| --- |
| 1. **Hierarchy**: The site should have a better hierarchy between elements. The site should utilize different font sizes with different size, weight, variant, and shade of color. In addition, a balance between weight and contrast needs to be achieved by playing around with the content’s spacing and font weight. 2. **Layout**: Currently, the website feels like its throwing everything in one’s face. It feels cluttered as there are too many text content with little space for elements to breathe. The spacing between content also needs tweaking such that it is more consistent and allows elements to have an ample amount of padding / margin. 3. **Colors**: The site should have one (or maybe two) primary colors that are used for primary actions, active navigation element, highlighted elements, etc. Then, it would also need different primary colors for accent, semantic states and others. The said color should then be derived into many shades both darker and lighter. 4. **Structure**: The content of the site should be categorized better with sane article / information grouping, separating between article, essential information and links. |

### User interface design

|  |  |
| --- | --- |
| **Sketch of homepage** | **Justification** |
|  | I am experimenting with a more minimalistic design approach where visibility and accessibility is considered. Utilizing appropriate scaling of UI elements, I am able to make something higher in the hierarchy / importances.  I’m experimenting with having one main featured document article (news, press release, guidelines, etc) where it is shown as the first thing on the page. Then, we would have 3 (or more) additional supporting document following it just below it.  Instead of using the footer for “Quick links”, I’ve decided to move it to the sidebar, next where the main article sits. The said section is now truly “quick” to be accessed and easily discoverable.  Below the main “masthead” of the app, I’m experimenting with a 2x2 cards on where COVID statistics will be shown. Seems like this is one of the important statistics to be tracked by the health ministry.  Below those, we would have the rest of the “main” content. Right now I’m thinking of having a list of documents that’s released by the ministry displayed neatly there. |
| **Sketch of subpage** | **Justification** |
|  | This would be the content of a document. We would have a heading content with the document title, excerpt and metadata (author, editor, released date, etc). Then, the content would simply be a body / paragraph of text. I would consider to support a variety of format (i.e, tables, charts, image figures, embeddable media) but it is not the utmost priority to do such things as the nature of official documents do not have those. |

## Lab 2

### User interface design

#### Digital design

#### Tool

What tool have you used to build the interactive prototype?

|  |
| --- |
| Figma |

#### URL

Insert (**a public**) URL of the digital prototype.

|  |
| --- |
| <https://www.figma.com/file/EXZgXa5aEIp5aPQrQ9kIQV/CMGT---UI%2FUX-Kemkes?node-id=0%3A1&t=pMGCLVCMwRzVpU77-1> |

#### Screenshots

|  |
| --- |
| Page screenshots |
|  |

### Justification of design

Explain how you took into account the different UI principles from the lecture.

#### The use of columns, margins and padding

|  |  |
| --- | --- |
| **Screenshot(s)** | **Justification** |
|  | As it is common with a modern website design and the website is a government site, I decided to go with a 3 main column layout where the main content (if any) is constrained into a certain width. Each column will have a margin between them to allow elements to breathe.  I have designed it such that the main content takes a larger amount of space (Featured News) and the supplementary information to take less (Quick Links).  Other section where elements are considered equal in hierarchy is designed to take the same amount of space (COVID-19 Statistics & Documents section).  In other pages / environment where the content might be mainly text, I have made the decision to focus on readability and break the above style guide. Contents are centered and limited to a fixed width of 960px. This is to allow the eye to rest comfortably in the general middle of the screen when using high resolution monitors.  In addition, on a text-primary page, I’ve decided to further limit the content to be left aligned with a width of around 65 character long (equates to about 630px). Due to the nature of English, we read text from left to right. Making text left aligned will make it so that it is easier to track on which line to start reading on each line breaks. In addition, 65 characters is the sweet spot of the amount of characters that is comfortable to the eyes to read. |

#### The layout (of elements)

|  |  |
| --- | --- |
| **Screenshot(s)** | **Justification** |
|  | In my design, I have used Tailwind’s recommended scale of padding / margin units, consisting of multiples of pixel units that are logical.  The design for the website uses an adequate amount of white space between elements. This will allow each elements to feel free and uncluttered as there each element have room to breathe |

#### The use of colors

|  |  |
| --- | --- |
| **Screenshot(s)** | **Justification** |
|  | Colors is one of the aspect of design that I obsess over. When designing the website, I took into account that the website will require much more colors that I might think. While one might think that having a single color hue is enough, I would need different shades of it for different usage (accent, secondaries, supports, etc), not to mention the additional hues for visual cues and other supporting materials.  I took the simple route and used a set of colors that is used by [TailwindCSS](https://tailwindcss.com/docs/customizing-colors). Tailwind provides a great starting point for color sets that’s often used for web development. Other than a single color Hue, they provide 12 different shades of the said color hue, removing the need of me manually generating those.  I chose the “**Rose**” color set for primaries and did not really need a secondary color. As the website is the Ministry of Health’s, having rose as the primary color signals that it is related to life, blood and hospitals.  I chose to use the “**Neutral**” color set primarily for text content. This is just a normal choice for content. Extra color hue might be used for hinting type of data (for example in COVID-19 Statistics section).  For accessibility and legibility reasons I did choose to use **Yellow.300** to highlight user selected element. Having a clearly bright color highlight is pretty common in official governments websites where accessibility and legibility is crucial.  For the main page’s featured article section, I chose to use the Primary hue for article headings to emphasize that it is a featured article. Then, I played with different shades of black on texts to allow for a playful combination of contrasts of different text hierarchy. The shade of black combined with the different font weight made the contrast feels *just right* and justified.  On the “COVID-19 statistics” section of the page, I experimented with having a cards to represent data. I chose a very light shade of neutral black to give the cards a subtle depth. I used an additional color of “**Amber**”, “**Yellow**”, “**Red**” and “**Green**” for visual cues on each cards.  Overall, I would say that I was able to create a visually appealing while systematically designed design that supports the goals of the website. |

#### The use of fonts

|  |  |
| --- | --- |
| **Screenshot(s)** | **Justification** |
|  | Font choices is another aspect of a website design that I tend to obsess over. For this redesign, I considered having two font family combination where each has multiple weight.  I chose to use the **Inter font** for the main content of the website. It is a standard Sans-Serif font that is is carefully crafted and designed to be displayed for computers and screens in general such that it has 9 different contrasting weight each with italic counterparts. Other than that, it supports many glyphs from different languages and niche font features that promotes legibility such as tabular numbers, contextual alternates, alternative variants of stylistic sets and others.  I chose to use **IBM Plex Sans font** for headings. While it is a Sans-serif font, there is something contrasty and majestic with the font which made it feel royal while keeping it Sans-serif. I mainly use the heavier weight of the font as it is being used for headings  It is to be noted that these fonts has a sensible default of font parameters: Line height, paragraph spacing, and kerning. I did not alter any of those parameters as it is not required.  When designing this website, I made sure that I played with every aspect of what a text can contain. This includes: Font family, font size, font weight, font color and font decoration. To take contrast and hierarchy into matters, I often emphasize needed content by de-emphasizing other content.  For example, in the main page’s featured section, the leading information is set to have a light weight heading font. The text is be further de-emphasized with a Neutral.600 color.  Then, the article’s title gets a bump in highlight by making the font to be a semi-bold heading font with an underline font decoration with a color of the site’s primary color (Rose).  Lastly, the excerpt of the article gets a normal font treatment by using a normal weight body font with a Neutral.900 color.  By carefully playing with typography in my design, I was able to create a visually appealing and user-friendly design that supports the goals of the website. |

#### The design of icons and/or buttons

|  |  |
| --- | --- |
| **Screenshot(s)** | **Justification** |
|  | As the content of the website is mainly text and images, I did not have the chance to utilize many icons as it is not relevant to the usage. Though, I still have managed to sneak in some icon where appropriate.  For generic icons, I have decided to use **Heroicons iconset** as the icon style complements the design language of the website that I’m redesigning. It also contains enough icons where the icon that I need exists.  For brand icons, I have chosen to use icons that has been compiled to the **Simple Icons iconset**. The iconset has been modified such that the icon is a perfect square with consistent spacing and legibility while still respecting the original brand’s guideline on using their icons.  As icons may convey different meaning per person, I focused on using icons as a visual aid, not only overusing it by using it as a supplement.  For example, I used the magnifying glass icon for the button in the search bar. The magnifying class is universally acknowledged as the icon of “searching for something” as it is a stereotype of detective / inspector. Its history goes back to Sherlock Holmes using magnifying glass to see small objects. In this case, there is a very minimal chance of misunderstandings of the meaning of the button.  In addition, I added the ministry’s social media presence using an icon button which represents each social media. Once again, every icon does not introduce a chance of misunderstandings as each icon is literally the platform’s icon. When one don’t know what a platform is, we can simply add a hover tooltip describing on which platform the icon is supposed to represent, though this is rare.  Overall, by using iconset that complements the design language and respecting previously discussed aspects, I am able to create a design that is user-friendly and enhances the overall user experience. |

#### If applicable, other design principles you applied.

Consider other design principles, such as contrast, alignment, visual hierarchy, or any other design elements that you feel are important to the overall success of your design. To justify your design choices, explain how these other design principles support the overall design aesthetic and improve the usability and engagement of the website.

|  |  |
| --- | --- |
| **Screenshot(s)** | **Justification** |
|  | Just to note, the website design language is heavily inspired by the looks of modern website. As it is a Government website, I tend to compromise aesthetics heavily with a11y (example: High Contrast hover links). |

### Content that needs crediting

List of free assets (icons, fonts, buttons, images, etc.) that were not made by you, and a link to the source of these assets.

|  |  |  |
| --- | --- | --- |
| **Asset** | **Location (in your design)** | **Source** |
| Font – Inter | Body text | <https://rsms.me/inter> |
| Font – IBM Plex Sans | Heading text | <https://ibm.com/plex> |
| Iconset – Hero Icons | General iconography set | <https://heroicons.com/> |
| Iconset – Simple Icons | Brand iconography set | <https://simpleicons.org/> |
| Colorset – Tailwind v3.0 |  | <https://tailwindcss.com/> |
| Images – Unsplash | Article images | <https://unsplash.com/> |

## Lab 3

### Heuristic analysis

|  |  |  |
| --- | --- | --- |
| **The 10 Heuristics in brief:**   |  |  | | --- | --- | | 1. **Visibility of system status** *The system should always keep users informed about what is going on through appropriate feedback within a reasonable time.* 2. **Match between system and the real world** *The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.* 3. **User control and freedom** *Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without going through an extended dialogue. Support undo and redo.* 4. **Consistency and standards** *Users should not have to wonder whether different words, situations, or actions mean the same thing.* 5. **Error prevention** *Even better than good error messages is a careful design that prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before committing to the action.* | 1. **Recognition rather than recall** *Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.* 2. **Flexibility and efficiency of use** *Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.* 3. **Aesthetic and minimalist design** *Dialogues should not contain information that is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant information units and diminishes their relative visibility.* 4. **Help users recognize, diagnose, and recover from errors** *Should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.* 5. **Help and Documentation** *Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.* | |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name of student you reviewed:** | | **Andreas** | | | | | | | | | |
| **URL of prototype:** | | **https://www.figma.com/proto/ZZtH4wEXEGXDDl9ZHclqiu/Website-UI?node-id=1-2&scaling=min-zoom&page-id=0%3A1&starting-point-node-id=1%3A2** | | | | | | | | | |
|  | | **Choose which heuristic(s) apply** | | | | | | | | | |
| **Issues found:** | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |
| 1 | The design uses only a single tone of text color with only variety of font size to highlight different level of hierarchy.  This is a compromise between the style of the website and the font chosen for the website having only a basic Regular and Bold variant. |  |  |  |  |  |  |  | X |  |  |
| 2 | The use of cursive fonts on the website might make some section of the site harder to read; While it is creative, not all people understands / read cursive everyday |  |  |  |  |  | X | X | X |  |  |
| 3 | The design for a disabled item in a dropdown might be unclear. The disabled item does not have a modified color; the only thing that signals that such item is disabled is not having a hover action. |  |  |  | X |  |  |  |  | X |  |

# Assignment 2: Game

## Lab 4

### Research and analyses

#### Screenshots

|  |
| --- |
| **Reference game #1**  Game title #1: ARK: Survival Evolved  **Reference game #2**  Game title #2: Halo Infinite  **Reference game #3**  **Game title #3:** Rust |

### UI/UX analyses

#### Reference game #1

|  |  |
| --- | --- |
| **Checkpoints** | **Analyses** |
| 1. Goal & achievements | Currently in a boss fight, have a text timer that’s centered on the middle top of the screen. |
| 1. Orientation | As currently in a boss fight, they can’t escape the area; Normally not applicable since it is a open world game |
| 1. Abilities | Player can use their items set in the item bar in the inventory screen |
| 1. Resources | Item bar middle bottom of the screen for quick inventory item access  Active player status effects shown via a an icon and duration in seconds |
| 1. Composition | Seems like the UI elements is either too small or too big  It is inconsistent between one elements and the other |
| **Summary** | |
| Mostly exclusively text or icon, nothing really describing and / or not welcoming to newcomers. | |

#### Reference game #2

|  |  |
| --- | --- |
| **Checkpoints** | **Analyses** |
| 1. Goal & achievements | Goals are described in the top left area |
| 1. Orientation | A map of where potential enemies is displayed on bottom left, an additional “visor” warning display is also displayed on the top. |
| 1. Abilities | A tutorial of how to do world interactions is displayed on the right hand side (tutorial) |
| 1. Resources | Ammo and gun type is displayed bottom right section |
| 1. Composition | Consistent and concise design language  Evereything looks flushed in with each other |
| **Summary** | |
| Really suits the need of a fantasy shooter | |

#### Reference game #3

|  |  |
| --- | --- |
| **Checkpoints** | **Analyses** |
| 1. Goal & achievements | N/A; Open world game where you can do anything |
| 1. Orientation | A dedicated toggleable map screen  A compass heading is shown on the top of the screen |
| 1. Abilities | N/A; |
| 1. Resources | An Itembar is shown on the bottom or the screen if you have something assigned to it. It will show the type of item, amount and / or durability of the item where appropriate |
| 1. Composition | Consistent and concise styling across the elements, including muted colors and transparency to element’s background to let players be more aware of their surroundings. |
| **Summary** | |
| The UI is very minimum to immerse one on the open-world game. But, they do not compromise readability and understandings where UI elements are needed. | |

### Background image

|  |
| --- |
| **Source:** WCCF Tech Article:  ARK: Survival Evolved Xbox One Preview – Living With Dinosaurs  https://wccftech.com/ark-survival-evolved-xbox-preview-living-dinosaurs/ |

### User assignment(s)

|  |  |
| --- | --- |
| **Criteria** | **Description** |
| Current active mission/quest in the game: | N/A; Open world game, do anything that you want  If there is a boss-fight, one will see a notification of the time on the top right of the screen |
| Find latest player achievement: | Player level ups will show up as a notification on top right of the screen |
| Player score | N/A; No player score but other achievements such as player leveling up are shown as a notification |
| Current task/challenge: | N/A; If any will be shown as a notification |
| What direction should the player move? | N/A; Open world game without a compass or a map.  There are world markers shown as a beacon in the game world if applicable. |
| Current active weapon: | Shown in the itembar and when active, the player is holding it; The item is not necessarily a weapon |
| Ammo or health: | Have a certain amount of Health, Hunger and Energy  Toggleable status bar |
| Player interactive tasks using your interactive hi-fi prototype with UI feedback: | Toggle UI States off and on selectively  Allow users to “try” out how the UI would feel |

## Lab 5

### User Interface Design

#### HUD sketch

Design a Lo-Fi UI sketch of a HUD, with a minimum resolution of 1920x1080px. Once ready, insert screenshots to the table below and a justification for your design.

|  |  |
| --- | --- |
| **Sketches** | **Justification** |
|  | I am experimenting with compromising screen space for a more beautiful and meaningful HUD elements.  For example, instead of a vertical bar overlayed inside of icons, I am displaying a longer horizontal bar with respective icon and colors along with actual number values for health, saturation and thirst. Also, in the spirit of “out-of-mind out-of-sight”, I have gotten rid of HUD for inventory weight, player energy and player exp as most of them do not need constant awareness.  Also, I have tried out shortening the status of item added / removed to use a simple `+` `-` icon for it instead of full letter. Might wanna play with using icons in the future  In addition, instead of a sole icon and duration for active status effects, I am using cards which displays the status name and duration more verbosely.  In addition, exp announcements are shown on top right using concise language and iconography. |

### Digital design

**Please pay attention! You only need to design the interaction with the HUD. You don't need to simulate the gameplay.**

#### Tool

What tool have you used to build the interactive prototype?

|  |
| --- |
| Figma |

#### URL

Insert (a public) URL of the digital prototype.

|  |
| --- |
| <https://www.figma.com/file/Sz8iVTVAHL8ON06hoDe1xu/UI%2FUX-Game-Redesign?node-id=0%3A1&t=aRiY6OGla9ma03dN-1> |

#### Instructions

Give a brief instruction on how to play the game, if you used keyboard shortcuts.

|  |
| --- |
| Click on elements to toggle UI states |

#### Screenshots

|  |
| --- |
| Insert some screenshots. |
|  |

## Lab 6

### Justification of design

|  |
| --- |
| After learning from many relatively worse UI than ARK’s, I feel like I have came to the following conclusion: Most of the UI elements on these kind of game genre tends to lean towards “out-of-sight, out-of-mind”, where most of unneeded or unimportant UI elements (out-of-mind) are not displayed in the context of the current UI.  A balance between conciseness and readability of HUD elements must be heavily considered; You don’t want to splash everything with icons that might empower the notion of the elements itself, but you also don’t want to spam text such that the user will need to read a wall of text before understanding the notion of the element.  For UI elements, I’ve used a limited color hue, ranging only primary colors (Red, Green & Blue) and other necessary derivatives (Yellow). These colors should be representative of the element that they are related to (Example: Red for health, Orange for hunger, etc)  I have managed to be consistent on using the right design language / art style for the HUD elements such that everything falls together neatly. It is not over-the-top trying to be “edgy” / be in-one with the vibe of the genre of the game, but rather have it clean and descriptive such that it is easier to read.  By incorporating these UI principles into my design, I believe I have created an effective and user-friendly UI HUD that allows the player to easily understand their status and navigate the game world. The design is clear, concise, and visually appealing, making it a valuable addition to the overall game experience. In addition, the design is more inviting towards new players as it is more friendly and more descriptive than the already existing UI. |

### Content that needs crediting

List of free assets (icons, fonts, buttons, images, etc.) that were not made by you, and a link to the source of these assets.

|  |  |  |
| --- | --- | --- |
| **Asset** | **Location (in your prototype)** | **Source** |
| Font - Inter | UI Elements | <https://rsms.me/inter> |
| Iconset - Game Icons | Icons in HUD | <https://game-icons.net/> |
| Iconset – Ark: Survival Evolved Wiki | General game related icons in UI Elements | [https://ark.fandom.com](https://ark.fandom.com/) |

<https://video.saxion.nl/media/Saxion+CMGT+-++UI+UX+Assignment+Presentation/1_sgg9l30i>