

Project 2: Medical Training Module

Hei Tung Wong (Hazes)



Semester Goal Progress Tracker

 project activity

Motivation	Skills I want to Grow	My biggest obstacle	Weekly action step to track	Accountability partner (name)
<i>Code:</i> Learn to code a web page	HTML + CSS	Time	Make time on my schedule. Use partner.	Ryan
<i>Design:</i> Learn to design a webpage	Illustration + coding	Drawing	Practice more drawing in digital and do more coding	Chaz
<i>Know Others:</i> Meet some new classmates	Communications		Be more confidence	DD



Jason Lee

Sheridan student

21 years old

I am a second-year Interaction Design student at Sheridan College. I have never taken a formal first aid or CPR course before. I am interested in learning CPR because I want to be prepared in emergencies, especially when I am at school or in public places.

I sometimes feel nervous when thinking about emergency situations because I am afraid of doing something wrong. I want a learning tool that is clear, simple, and gives me confidence.

Jason's Goals and Motivations

- Learn correct CPR steps in the right order
- Understand compression depth and rate clearly
- Feel confident enough to help in real emergencies
- Practice without feeling judged
- Remember key steps like "Call 911" and "Get AED"

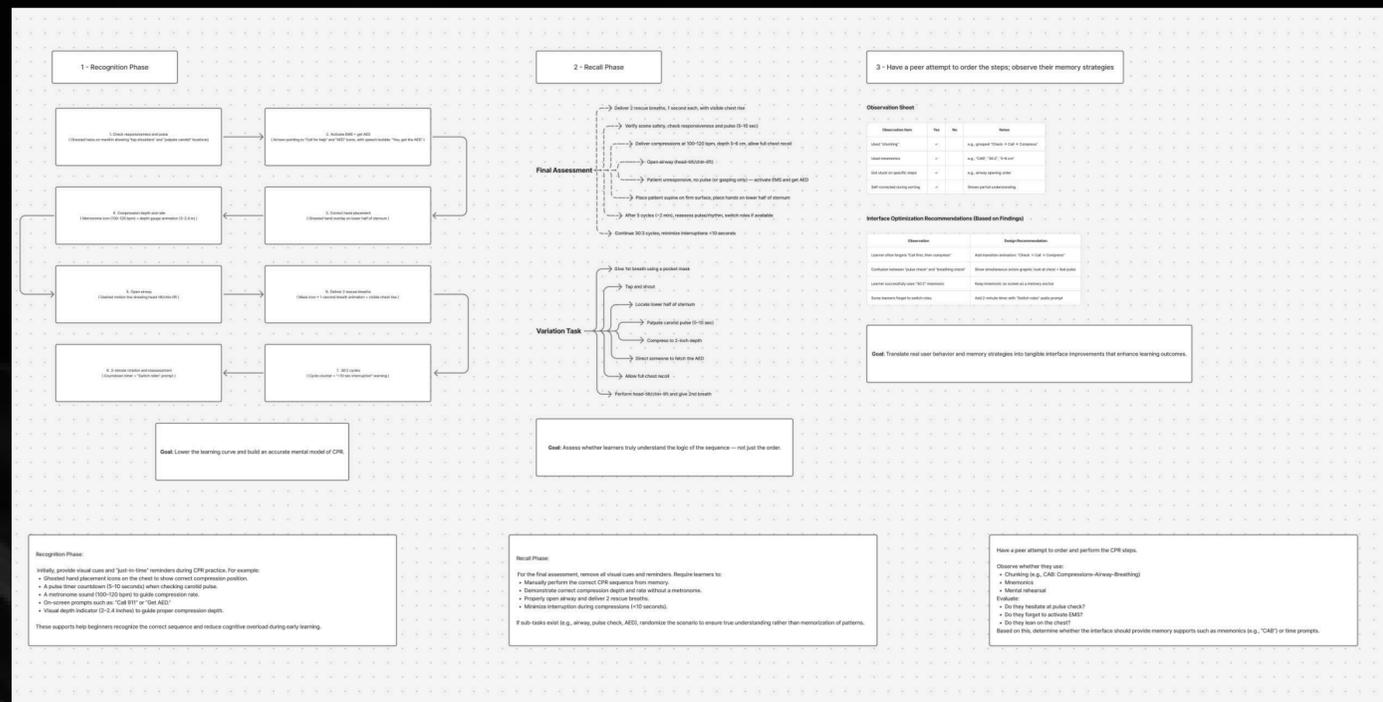
The Hardest Parts for Jason

- Afraid of forgetting steps during an emergency
- Not sure how hard to press during chest compressions
- Confused about when to give rescue breaths
- Panic under pressure
- Worry about making mistakes

Information Jason Will Look for in the Website

- A clear step-by-step CPR guide that explains the correct procedure
- Visual diagrams showing correct hand placement
- Indicators explaining compression depth and rate
- Interactive feedback to help users understand if they performed steps correctly
- Explanations of common mistakes during CPR
- A quick summary section for reviewing the CPR sequence during emergencies

Figma Prototype



Desktop - 1

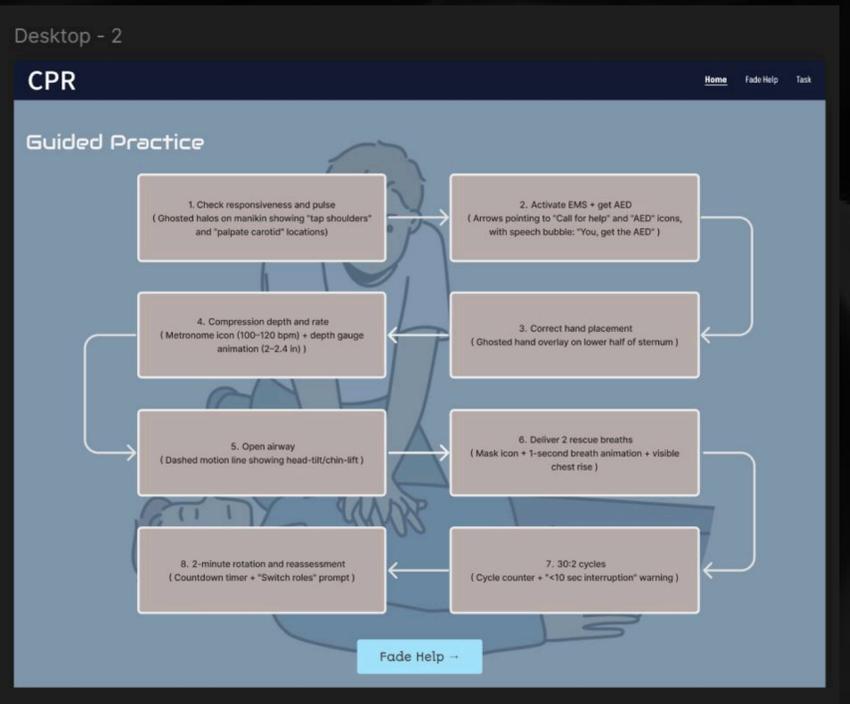
CPR

Home Fade Help Task

To improve CPR performance:

- Use Real-Time Feedback Devices**
CPR manikins with feedback sensors can monitor compression depth and rate.
- Emphasize Minimizing Interruptions**
Train responders to switch compressors quickly (within 5 seconds).
- Practice High-Stress Simulation**
Simulate realistic emergency environments to improve decision-making under pressure.
- Reinforce Critical Fail Steps**
Special training focus on:
 - Avoiding prolonged pulse checks (>10 seconds)
 - Avoiding shallow compressions
 - Preventing excessive ventilation
- Regular Refresher Training**
CPR skills decline within months; refresher practice improves retention.

[Learn more](#)



Figma Link: <https://www.figma.com/board/osma8AajHBEhCE1BRDfRoZ/Project-2?node-id=0-1&t=bUtCouYXGkr1IELm-1>

<https://www.figma.com/design/cOV8pj7zx30QuLLqyT711S/Project-2-Prototype?node-id=0-1&t=Cd6YWvPjN5lxdcsn-1>

Process work

CPR

Recognition → Recall → Independent Use (+ Peer Test)

中文 / EN Reset

1) Guided 2) Fade Help 3) Independent Peer Test

Screen 1: Guided Practice (Model the Task)

Full cues reduce stress and help beginners follow the correct CPR sequence.

Pulse Check Timer
10s

Compression Rate
100-120 bpm
Metronome guidance

Compression Depth
2-2.4 in
5-6 cm

Start 10s Pulse Check Next Step Reset Steps

- 1 Check responsiveness & pulse**
Tap shoulders + shout. Scan breathing + feel carotid pulse (≤10s).
Cue: Ghosted halos: tap shoulders + carotid location
- 2 Activate EMS + get AED**
Call for help. Point to someone: "You, get the AED."
Cue: Arrows to Call/AED icons + speech bubble
- 3 Correct hand placement**
Hands on lower half of sternum. Elbows locked.
Cue: Hand overlay on lower sternum
- 4 Compression depth & rate**
100-120 bpm; 2-2.4 in (5-6 cm); full recoil.
Cue: Metronome + depth gauge
- 5 Open airway**
Head-tilt/chin-lift (jaw-thrust if neck injury suspected).
Cue: Motion line for head-tilt/chin-lift
- 6 Deliver 2 rescue breaths**
Barrier device; 1 second each; visible chest rise.
Cue: Mask icon + 1-second breath animation
- 7 Continue 30:2 cycles**
Minimize interruptions (<10s).
Cue: Cycle counter + warning
- 8 ~2-min reassessment**
After ~5 cycles (≈2 min), reassess and switch roles.
Cue: 2-min timer + 'Switch roles'

Hand overlay Metronome No leaning Call 911 / Get AED

Purpose

Model the correct CPR procedure and reduce cognitive load for beginners.

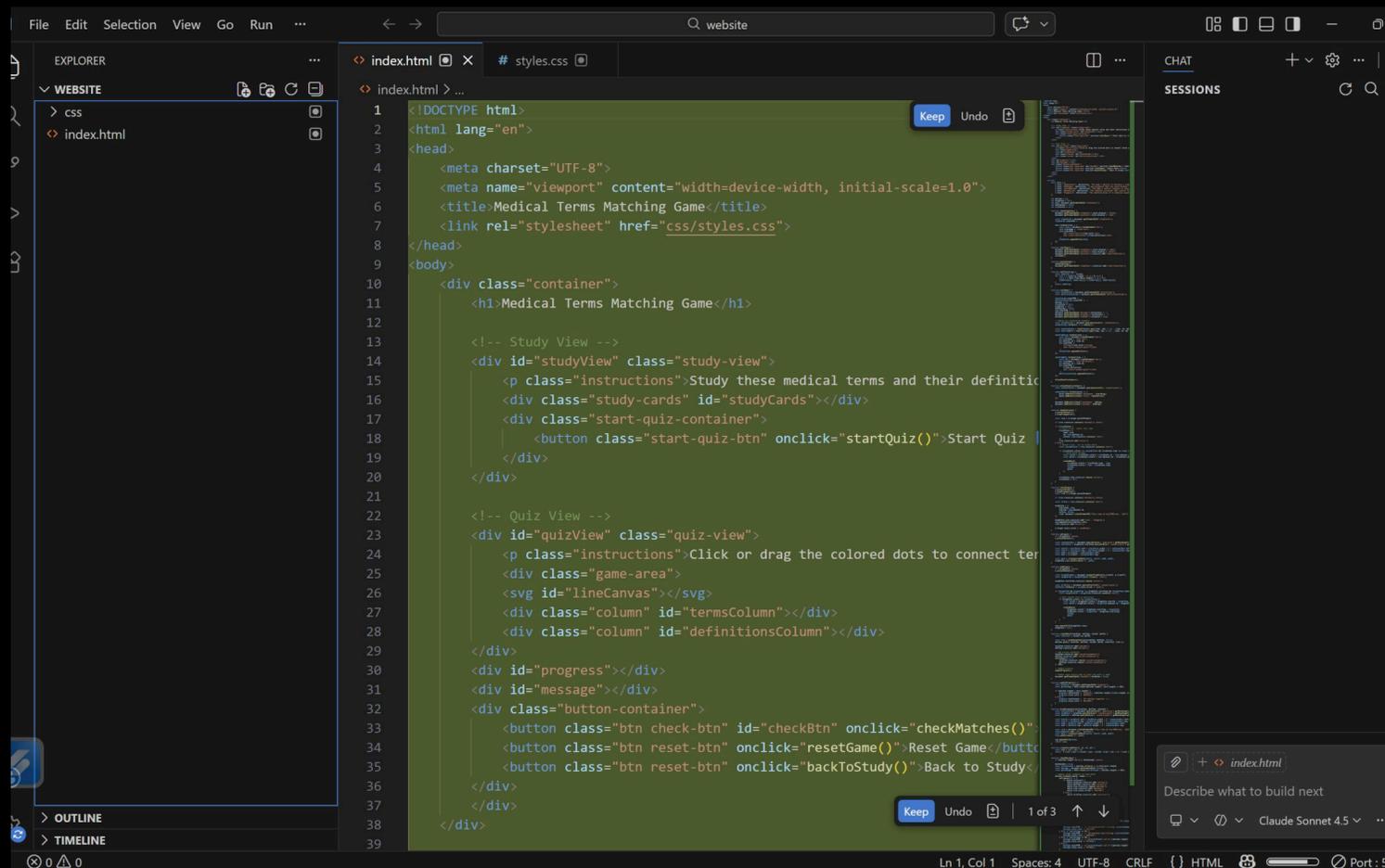
On-screen reminders

Call 911 Get AED

These reminders reduce hesitation in emergencies.

```
<!doctype html>
<html lang="zh-HK">
<head>
<meta charset="utf-8" />
<meta name="viewport" content="width=device-width, initial-scale=1" />
<title>CPR</title>
<style>
:root{
--bg: #f6f7fb; --card: #fff; --ink: #111827; --muted: #6b7280; --line:
--accent: #6d5efc; --good: #19c37d; --warn: #f59e0b; --bad: #ef4444;
--shadow: 0 10px 25px #rgba(16,24,40,.08); --radius:18px;
--mono: ui-monospace, SFMono-Regular, Menlo, Monaco, Consolas, "Liberation
--sans: ui-sans-serif, system-ui, -apple-system, Segoe UI, Roboto, Helvetic
}
*{box-sizing:border-box}
body{
margin:0; font-family:var(--sans); color:var(--ink);
background:
radial-gradient(1200px 500px at 30% -10%, #rgba(109,94,252,.18), transp
radial-gradient(900px 450px at 95% 20%, #rgba(25,195,125,.14), transpa
var(--bg);
}
header{
position:sticky; top:0; z-index:10;
background: #rgba(246,247,251,.84); backdrop-filter: blur(10px);
border-bottom:1px solid var(--line);
}
.wrap{max-width:1100px; margin:0 auto; padding:18px}
.topbar{display:flex; align-items:center; justify-content:space-between; gap:
h1{margin:0; font-size:28px; letter-spacing:.5px}
.subtitle{color:var(--muted); font-size:13px; margin-top:4px}
.controls{display:flex; gap:10px; align-items:center; flex-wrap:wrap}
button{
border:1px solid var(--line); background:var(--card); color:var(--ink);
padding:10px 12px; border-radius:999px; cursor:pointer; font-weight:700;
box-shadow: 0 2px 10px #rgba(16,24,40,.05);
}
button:hover{border-color:#cbd5e1}
.tabs{display:flex; gap:10px; flex-wrap:wrap; margin-top:12px}
```

In-class activities



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Medical Terms Matching Game</title>
7   <link rel="stylesheet" href="css/styles.css">
8 </head>
9 <body>
10  <div class="container">
11    <h1>Medical Terms Matching Game</h1>
12
13    <!-- Study View -->
14    <div id="studyView" class="study-view">
15      <p class="instructions">Study these medical terms and their definitio
16      <div class="study-cards" id="studyCards"></div>
17      <div class="start-quiz-container">
18        <button class="start-quiz-btn" onclick="startQuiz()">Start Quiz
19      </div>
20    </div>
21
22    <!-- Quiz View -->
23    <div id="quizView" class="quiz-view">
24      <p class="instructions">Click or drag the colored dots to connect ter
25      <div class="game-area">
26        <svg id="lineCanvas"></svg>
27        <div class="column" id="termsColumn"></div>
28        <div class="column" id="definitionsColumn"></div>
29      </div>
30      <div id="progress"></div>
31      <div id="message"></div>
32      <div class="button-container">
33        <button class="btn check-btn" id="checkBtn" onclick="checkMatches()
34        <button class="btn reset-btn" onclick="resetGame()">Reset Game:/butto
35        <button class="btn reset-btn" onclick="backToStudy()">Back to Study<
36      </div>
37    </div>
38  </div>
39
```

Medical Terms Matching Game

Study these medical terms and their definitions before starting the quiz

Homeostasis

The body's ability to maintain a stable internal environment.

Pathogen

A microorganism that can cause disease.

Inflammation

The body's natural response to injury or infection, causing redness and swelling.

Metabolism

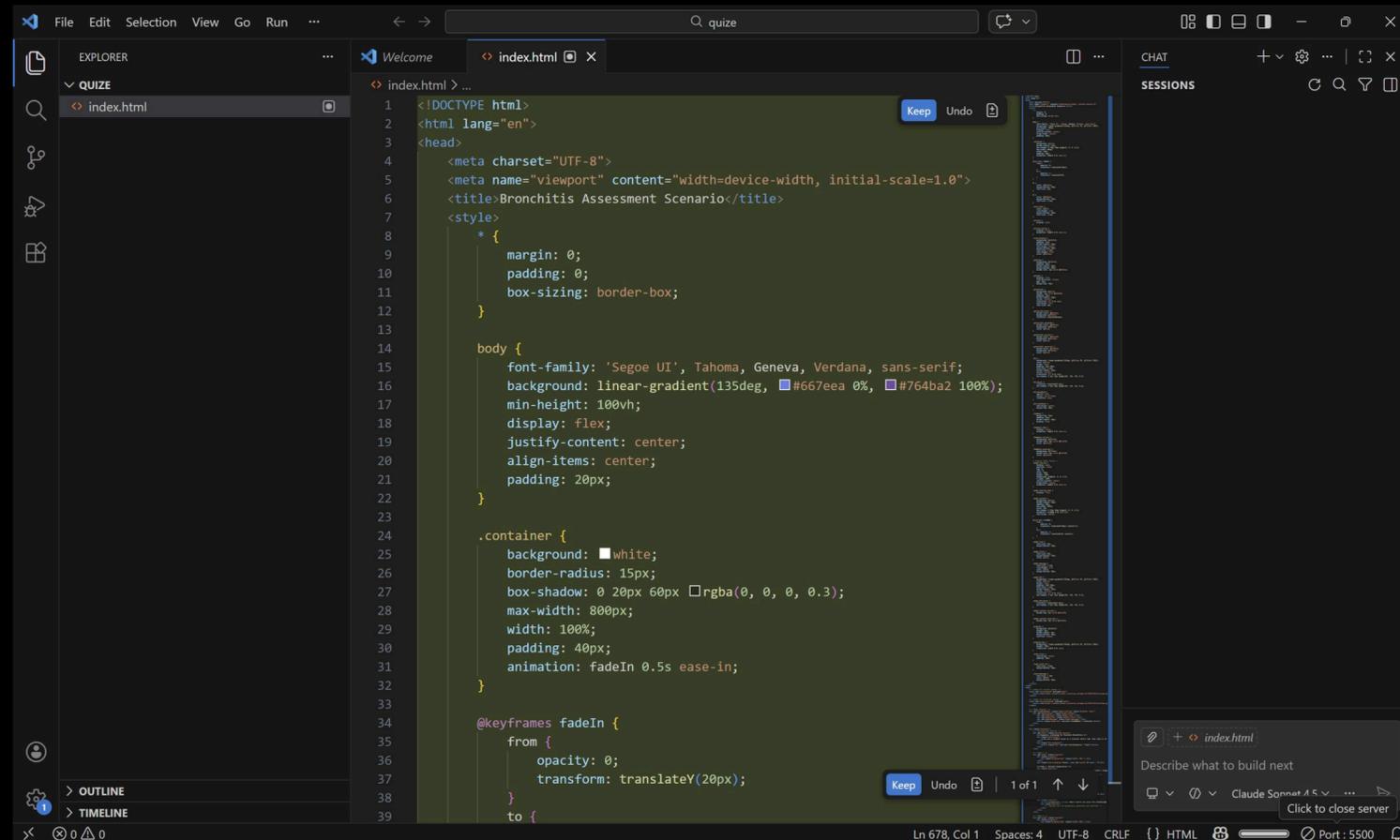
The chemical processes that convert food into energy in the body.

Diagnosis

The identification of a condition based on symptoms, tests, or evaluation.

Start Quiz →

In-class activities



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Bronchitis Assessment Scenario</title>
7 </head>
8 <body>
9   *
10  margin: 0;
11  padding: 0;
12  box-sizing: border-box;
13 </body>
14
15  body {
16    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
17    background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);
18    min-height: 100vh;
19    display: flex;
20    justify-content: center;
21    align-items: center;
22    padding: 20px;
23  }
24
25  .container {
26    background: #fff;
27    border-radius: 15px;
28    box-shadow: 0 20px 60px rgba(0, 0, 0, 0.3);
29    max-width: 800px;
30    width: 100%;
31    padding: 40px;
32    animation: fadeIn 0.5s ease-in;
33  }
34
35  @keyframes fadeIn {
36    from {
37      opacity: 0;
38      transform: translateY(20px);
39    }
40    to {
```

Scenario: Listening for Possible Bronchitis

You are a student nurse in a clinical skills lab. Your task is to use a stethoscope to listen to a patient's breath sounds and identify whether they may need further assessment for bronchitis. This scenario teaches proper technique, not diagnosis.

Start

Score: 0 / 5

Step 1: Patient Preparation

Question: Before auscultating the patient's lungs, what is the FIRST thing you should do?

Start listening at the lower back immediately

Ask the patient to hold their breath immediately

Explain the procedure and ask the patient to sit upright

Place the stethoscope directly on the patient's clothing