



**UNIVERSITY  
OF MALAYA**



## **WIF2003 WEB PROGRAMMING**

### **PHASE 1**

### **Project Title: Critical Thinking Skills**

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**GROUP: 2**

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## **ABSTRACT**

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## **1. INTRODUCTION**

### **1.1 Project Objective**

1. To develop online-based assessment based.
2. To compare the critical thinking skill with the CGPA.
3. To develop an attractive website for critical thinking skills assessment.

### **1.2 Project Team**

No.	Name	Matric No.	Email	Role
1	Afrie Irham bin Akram	WIF170005	itsafrie@gmail.com	Leader
2	Adib Faris bin Shafiei	WIF170004	adibfaris98@gmail.com	Coder/Designer
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4	Muhammad Zarif Nazmi Bin Shazrin Helmi	WIF170106	zarifnazmi@gmail.com	Coder/Designer
5	Kalaivani A/P Ramesh	WIF170061	rameshkalaivani260@yahoo.com	Coder/Designer

## **1.3 System Functionalities**

### **1.3.1 ADMIN**

1. Admin shall be able to add/create a question
2. Admin shall be able to login to the system
3. Admin shall be able view and manage the database (student, test, question)

### **1.3.2 STUDENT**

1. Student shall be able to sign in and login to the system
2. Student shall be able to answer the CTS question
3. Student shall be able to view their result of the test

## **1.4 Quality Requirement**

1. The performance of the website is consistent
2. Student must be able to answer the CTS questions not more than 1-hour.
3. Authorized student able to sign up to answer the questions
4. Student should easily use our website as long as there is Internet connection

## **2. FRONT-END**

Our front-end consist of 6 main part which is home, login, sign up, admin, questions, and also submission part. We use html, css, and bootstrap to design our front-end part.

For the home page, we briefly introduce about what is Critical Thinking Skills. Once user click the “Get Started” button the page will move to the login part. Before the user login, they have to make sure to sign up first before they answer the questions.

Next, the questions consist of 10 questions and each of the question for 1 page. The answer part have different type of input for example text box, radio box, input file and others. Once the question already answered, they can submit the answer and get their result of the test.

## **2.1 Approaches and Techniques used to design the front-end**

### **2.1.1 Home page**

For Homepage we used bootstrap and CSS. We divided the Homepage into 3 container using bootstrap. For the First container, we use heading, margin, paragraph, blockquote features and we add some critical thinking skills images. We also added button to link our Home page to Login page. For second container we use the same heading, paragraph and we justify the text. Next, for third container we added information about critical thinking skills. We divided three section using card body. In each section we use paragraph and we added image using Bootstrap. We also used margin, height, width to place the image in a proper size for our website. Besides, we also added a embedded video about critical thinking skills in our website using iframe code. For footer, we added copyright using Bootstrap text.

Next, we style our body, background and button using CSS and we called the link of CSS styling in main Bootstrap code. For body, we use CSS styling of font-family and color. We set a specific border-radius for the button and to active it. For Home page, we used four background and each of it we use CSS styling of height, padding, background color and color.

```

<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
    href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
    integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cYiJTQUOhcWr7x9JvoRxT2MZw1T"
    crossorigin="anonymous">
  <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
  <link href="css/index.css" rel="stylesheet">

  <title>Welcome to CTS!</title>
</head>

<body>
  <!-- First Container -->
  <section class="bg-1 text-center">
    <div class="container">
      <h3 class="h3 mb-3">Critical Thinking Skills</h3>
      
    </div>
  </section>
</body>

```

Figure 2.1.1.1 Bootstrap link and heading with first container and image

```

<blockquote class="blockquote mt-5">
  <p class="mb-0">If there was one life skill everyone on the planet needed, it was the ability
    to think with
    critical objectivity.</p>
  <footer class="blockquote-footer text-white">Josh Lanyon</footer>
</blockquote>

```

Figure 2.1.1.2 Paragraph with blockquote

```

<a id="get-started" href="login.html" class="btn btn-lg btn-outline-light mt-5">Get Started</a>
</div>
</section>

```

Figure 2.1.1.3 Bootstrap Button

```

<!-- Second Container -->
<section class="bg-2">
<div class="container">
  <h3 class="h3 text-center">What is Critical Thinking?</h3>
  <p class="text-justify lead">The Skills We Need for Critical Thinking. The skills that we need
  in order to be able
  to think critically are
  varied and include observation, analysis, interpretation, reflection, evaluation, inference,
  explanation,
  problem
  solving, and decision making.</p>
</div>
</section>

<!-- Third Container (Grid) -->
<section class="bg-3">
<div id="third" class="container text-center">
  <h3 class="text-center">About Critical Thinking</h3>

  <div class="card mt-3">
    <div class="card-body">
      <p class="lead">Critical thinking is thinking about things in certain ways so as to arrive at
      the best
      possible
      solution in
      the circumstances that the thinker is aware of.</p>
      
    </div>
  </div>

  <div class="card mt-3">
    <div class="card-body">
      <p class="lead">Good critical thinkers can draw reasonable conclusions from a set of
      information and
      discriminate between
      useful and less useful details.</p>
      
    </div>
  </div>

```

Figure 2.1.1.4 Bootstrap container 2 and 3 with heading,paragraph,car-body and images

```
<div class="card mt-3">
  <div class="card-body">
    <p class="lead">Critical thinking involves the evaluation of sources such as data, facts, observable phenomenon, and research findings.</p>
    <iframe width="560" height="315" src="https://www.youtube-nocookie.com/embed/HnJ1bqXUnIM" frameborder="0"
      allow="accelerometer; encrypted-media; gyroscope; picture-in-picture" allowfullscreen>
  </div>
</div>
```

Figure 2.1.1.5 embedded video with fixed height and width

```
<div class="card mt-3">
  <div class="card-body">
    <h3 class="text-center">References</h3>
    <p><a href="https://www.skillsyouneed.com/learn/critical-thinking.html">https://www.skillsyouneed.com/learn/critical-thinking.html</a></p>
    <p><a href="https://www.thebalancecareers.com/critical-thinking-definition-with-examples-2063745">https://www.thebalancecareers.com/critical-thinking-definition-with-examples-2063745</a></p>
    <p><a href="https://www.moddb.com/groups/critical-thinkers-of-moddb/images/critical-thinking-skills">https://www.moddb.com/groups/critical-thinkers-of-moddb/images/critical-thinking-skills</a></p>
  </div>
</div>
</div>
</section>
```

Figure 2.1.1.6 Hyperlink to references page

```

<!-- Footer -->
<footer class="container-fluid bg-4 text-center">
  Copyright &copy; 2019 Web Programming
</footer>

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
  integrity="sha384-q8i/X+96DzO0rT7abK41JStQIAqVgRVzbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
  crossorigin="anonymous">
</script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
  integrity="sha384-"
  crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
  integrity="sha384-"
  crossorigin="anonymous">
</script>
</body>

</html>

```

Figure 2.1.1.7 Footer

```

body {
  font-family: Montserrat, sans-serif;
  color: #f5f6f7;
  /* background: #1abc9c; */
}

```

Figure 2.1.1.8 CSS for body with font-family,color and background

```

#get-started{
  border-radius: 100px;
}

#get-started:hover{
  color: #1abc9c;
}

#third img{
  width: 70%;
}

```

Figure 2.1.1.9 CSS for button with border-radius,color and image width

```
.bg-1 {  
background: #1abc9c;  
color: #ffffff;  
padding: 5em 0;  
height: 100vh;  
}  
  
.bg-2 {  
padding: 5em 0;  
height: 50vh;  
background: #474e5d;  
color: #ffffff;  
}  
  
.bg-3 {  
padding: 5em 0;  
background-color: #ffffff;  
color: #555555;  
}  
  
.bg-4 {  
padding: 2em 0;  
background-color: #2f2f2f;  
color: #fff;  
}
```

Figure 2.1.1.10 CSS for background,padding,height and color

### **2.1.2 Login page**

For login page, we use bootstrap and css to design the page(font, alignment etc.). There is an input type for username and password for user or admin to log in with their username ID and password to their respective page. At the bottom of the input, there is navigation button login and start button to start answering the question in the next page. For sign up, we use hyperlink to direct to direct user to sign up page.

```

<!doctype html>
<html lang="en">

<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
        href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css" integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
        crossorigin="anonymous">

    <link href="css/login.css" rel="stylesheet">
    <title>Web Programming</title>
</head>

```

Figure 2.1.2.1 Html and Bootstrap link

```

<body>

    <div class="container text-center">
        <form class="form-signin">
            <h3 class="h3 mb-3 font-weight-normal">Login Page</h3>
            <label for="inputEmail" class="sr-only">Username or Email</label>
            <input type="text" id="inputEmail" class="form-control" placeholder="Username or Email" required
autofocus>
                <label for="inputPassword" class="sr-only">Password</label>
                <input type="password" id="inputPassword" class="form-control mb-3" placeholder="Password"
required>
                    <button class="btn btn-primary btn-block mb-2" type="submit"><a href="questions" class="text-
white">Login</a></button>
                    <button class="btn btn-primary btn-block mb-2" type="submit"><a href="admin" class="text-
white">Admin</a></button>
                    <p class="h6">or</p>
                    <a href="signup.html">Create new a account</a>
            </form>
        </div>
        <!-- Optional JavaScript -->
        <!-- jQuery first, then Popper.js, then Bootstrap JS -->
        <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-
q8i/X+965Dz0OrT7abK41JStQIAqVgRVzbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
            crossorigin="anonymous"></script>
        <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
integrity="sha384-U02eT0CpHqdSJQ6hJty5KVphtPhzWj9W01clHTMGa3JDZwrnQq4sF86dIHNDz0W1"
            crossorigin="anonymous"></script>
        <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
integrity="sha384-JjSmVgyd0p3pXB1rRibZUAYoIIy60rQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
            crossorigin="anonymous"></script>
    </body>

</html>

```

Figure 2.1.2.2 Html and Bootstrap link

```
html,  
body {  
    height: 100%;  
}  
  
/* Body Styling */  
body {  
    display: -ms-flexbox;  
    display: flex;  
    -ms-flex-align: center;  
    align-items: center;  
    padding-top: 40px;  
    padding-bottom: 40px;  
    background-color: #f5f5f5;  
}  
  
/* Form styling */  
.form-signin {  
    width: 100%;  
    max-width: 330px;  
    padding: 15px;  
    margin: auto;  
}  
.form-signin .checkbox {  
    font-weight: 400;  
}  
  
}  
.form-signin .form-control {  
    position: relative;  
    box-sizing: border-box;  
    height: auto;  
    padding: 10px;  
    font-size: 16px;  
}  
.form-signin .form-control:focus {  
    z-index: 2;  
}  
.form-signin input[type="email"] {  
    margin-bottom: -1px;  
    border-bottom-right-radius: 0;  
    border-bottom-left-radius: 0;  
}  
.form-signin input[type="password"] {  
    margin-bottom: 10px;  
    border-top-left-radius: 0;  
    border-top-right-radius: 0;  
}
```

Figure 2.1.2.3 Login CSS Code



## **2.1.3 Sign Up page**

For signup page, we use css to design the background colour. For the layout, we use bootstrap to style the page. The sign up page is for section A where users have to fill in their details such as student details, CGPA, examination results, etc. Next and Back button to navigate between pages.Cancel button for direct to Home page.Lastly, Sign Up button to complete the registration and direct to questions page.

```
<!doctype html>
<html lang="en">

<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
        href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
        integrity="sha384-gg0yR0iXcbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
        crossorigin="anonymous">
    <link href="css/signup.css" rel="stylesheet">

    <title>Sign In</title>
</head>

<body>
    <div class="container mt-5">
        <h3 class="h3 mb-3">Sign In (Section A)</h3>
        <form>
            <div class="form-group row">
                <label for="inputPassword3" class="col-sm-2 col-form-label">Registration Number</label>
                <div class="col-sm-10">
                    <input type="text" class="form-control" id="inputPassword3" placeholder="Matric No.">
                </div>
            </div>
            <div class="form-group row">
                <label for="inputPassword3" class="col-sm-2 col-form-label">Name of University</label>
                <div class="col-sm-10">
                    <input type="text" class="form-control" id="inputPassword3" placeholder="Name of University">
                </div>
            </div>
            <div class="form-group row">
                <div class="col-sm-2">Year of Study</div>
                <div class="col-sm-10">
                    <select class="custom-select" id="inputGroupSelect01">
                        <option selected disabled>Choose...</option>
                        <option value="1">First</option>
                        <option value="2">Second</option>
                        <option value="3">Third</option>
                        <option value="4">Fourth</option>
                    </select>
                </div>
            </div>
        </form>
    </div>
</body>
```

Figure 2.1.3.1 HTML and Bootstrap link

```

<div class="form-group row">
    <div class="col-sm-2">Gender</div>
    <div class="col-sm-10">
        <select class="custom-select" id="inputGroupSelect01">
            <option selected>Choose...</option>
            <option value="1">Male</option>
            <option value="2">Female</option>
        </select>
    </div>
</div>
<div class="form-group row">
    <div class="col-sm-2">Age Group</div>
    <div class="col-sm-10">
        <select class="custom-select" id="inputGroupSelect01">
            <option selected>Choose...</option>
            <option value="1">Below 18 Years</option>
            <option value="2">18-21 Years</option>
            <option value="2">22-25 Years</option>
            <option value="2">Above 25 Years</option>
        </select>
    </div>
</div>
<div class="form-group row">
    <div class="col-sm-2">Ethnic Group</div>
    <div class="col-sm-10">
        <select class="custom-select" id="inputGroupSelect01">
            <option selected>Choose...</option>
            <option value="1">Malay</option>
            <option value="2">Chinese</option>
            <option value="2">Indian</option>
            <option value="2">Others</option>
        </select>
    </div>
</div>
<div class="form-group row">
    <div class="col-sm-2">Nationality</div>
    <div class="col-sm-10">
        <select class="custom-select" id="inputGroupSelect01">
            <option selected>Choose...</option>
            <option value="1">Malaysian</option>
            <option value="2">Chinese (China)</option>
            <option value="2">Indonesian</option>
            <option value="2">Pakistani</option>
            <option value="2">Others</option>
        </select>
    </div>
</div>
<div class="form-group row">
    <div class="col-sm-10">
        <a class="btn btn-primary text-white mr-2" href="past-year.html">Next</a>
        <a href="index.html">Cancel</a>
    </div>
</div>
</form>
</div>

<!-- Optional JavaScript -->
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
       integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzbzo5smXKp4YfRvH+8abTE1Pi6jizo"
crossorigin="anonymous">
</script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
       integrity="sha384-U02eT0CpHqdSJQ6hJty5KVphPhzWj9W01cLHTMGa3JDzwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
       integrity="sha384-JjSmVgyd0p3pXB1rRibZUAYoIlIy60rQ6VrjIEaFF/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous">
</script>
</body>

</html>

```

Figure 2.1.3.2 HTML and Bootstrap link

```
/* Body Background */  
body {  
    background-color: #f5f5f5;  
}
```

Figure 2.1.3.3 CSS for Sign Up

#### **2.1.4 Question landing page**

For question landing page, we use bootstrap and css to design the page(font, alignment etc.). We use css to insert image which is to make it attractive. We use bootstrap for pagination to criteria. We use html to link the page to the next and previous page. We also use table such row and column to make the criteria of CTS align at the bottom of the picture. At the bottom of the page, there is a source and copyright to cite source web.

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <meta http-equiv="X-UA-Compatible" content="ie=edge">
    <title>Welcome to CTS Test</title>
    <link rel="stylesheet"
        href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
        integrity="sha384-ggOyR0iXcbMqv3Xipma34MD+dH/1fQ784/j6cY/iJTQU0hcWr7x9JvoRxT2MZw1T"
        crossorigin="anonymous">
    <link rel="stylesheet" href="../css/landing.css">
</head>
```

Figure 2.1.4.1 HTML and bootstrap for question landing page

```
.main {
    position: relative;
    background-image: url('../images/main.png');
    background-size: 100% 100%
}
```

Figure 2.1.4.2 CSS for image

```

<section class="man text-center p-5">
    <h2 class="mt-5">Are you ready?</h2>
    <a href="q1.html" class="mb-5 btn btn-dark">Start</a>
</section>

```

Figure 2.1.4.3 HTML and bootstrap for link to next page

```

<nav class="">
    <ul class="pagination justify-content-center">
        <li class="page-item"><a class="page-link bg-dark text-white" href="#text-1">Argument</a></li>
        <li class="page-item"><a class="page-link bg-dark text-white" href="#text-2">Assumption</a></li>
        <li class="page-item"><a class="page-link bg-dark text-white" href="#text-3">Deduction</a></li>
        <li class="page-item"><a class="page-link bg-dark text-white" href="#text-4">Interpretation</a></li>
        <li class="page-item"><a class="page-link bg-dark text-white" href="#text-5">Inference</a></li>
    </ul>
</nav>

```

Figure 2.1.4.4 HTML and bootstrap to pagination

```

<div class="container text-justify">
    <div class="row mt-3 float-right">
        <a href="../login.html" class="btn btn-outline-dark">Logout</a>
    </div>
    <div id="text-1" class="row p-5 align-items-center" style="height: 50vh;">
        <div class="col-5">
            <h3 class="h1 text-left">Argument</h3>
        </div>
        <div class="col-7">
            <p class="lead text-justify">
                In the argument section you are tested on your ability
                to distinguish between arguments that are strong and arguments that are weak.
                For an argument to be strong, it must be both important and directly related
                to the question. An argument is weak if it is not directly related to the question,
                of minor importance, or it confuses correlation with causation
                (which is incorrectly assuming that just because two things are related,
                they are the cause of each other).
            </p>
        </div>
    </div>

```

Figure 2.1.4.5 HTML and bootstrap for table

```

<footer class="bg-4 text-center">
    Copyright <img alt="copy icon" style="vertical-align: middle; height: 1em;"/> 2019 Web Programming
    <small>Source from <code><small>Source Title</small></code></small> https://www.apitude-test.com/critical-thinking.html</small></small>
</footer>

```

Figure 2.1.4.6 HTML and bootstrap for footer

### **2.1.5 Questions page**

For the 10 questions, we used bootstrap to style the font and the layout. We used jumbotron class to make the container of the question. Then, we used css for the background image. Input forms is used for user to enter their answers. At the bottom of the page, there are Next and Back button, for direct the user between the questions page and Cancel button to go back to Home page. At the Questio page, there is Submit button to direct to Review Questions.

```

<!doctype html>
<html lang="en">

<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <!-- Bootstrap CSS -->
    <link rel="stylesheet"
        href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
        integrity="sha384-ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
        crossorigin="anonymous">
    <link rel="stylesheet" href="qstyle.css">

    <title>Question 1</title>
</head>

<body>
    <br>
    <div class="container">
        <p>Timer: <span id="demo"></span></p>
        <h1 class="display-4"><strong>Question 1</strong></h1>

        <div class="jumbotron">
            <div class="container">
                <p class="lead">There was a power failure in the house. Mrs. Lim lighted up 10 candles.  

After sometime, four candles  

        were blown out by the wind. Later, another three candles were blown out. </p>
                <p class="lead" ><i>Question</i>: <strong>How many candles remained on the following  

day?</strong></p>
                <hr class="my-4">
                <div class="input-group mb-3">
                    <div class="input-group-prepend">
                        <label class="input-group-text" for="inputGroupSelect01">Answer:</label>
                    </div>
                    <input type="text" class="form-control">
                </div>
            </div>
        </div>

        <div class="form-group row">
            <div class="col-sm-10">
                <a class="btn btn-primary text-white mr-2" href="q2.html">Next</a>
                <a href="index.html">Cancel</a>
            </div>
        </div>
    </div>
</div>

```

Figure 2.1.5.1 HTML Code for Question 1

```
<!-- Optional JavaScript -->
<script src="../js/timer.js"></script>
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"
    integrity="sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzbzo5smXKp4YfRvH+8abTE1Pi6jizo"
crossorigin="anonymous">
</script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"
    integrity="sha384-U02eT0CpHqdSJQ6hJty5KVphtPhzWj9W01c1HTMGA3JDZwrnQq4sF86dIHNDz0W1"
crossorigin="anonymous">
</script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"
    integrity="sha384-JjSmVgyd0p3pXB1rRibZUAYoIIy60rQ6VrjIEaFf/nJGzIxFDsf4x0xIM+B07jRM"
crossorigin="anonymous">
</script>
</body>

</html>
```

Figure 2.1.5.2 HTML Code for Question 1

```
body{
    background-image: url(background.jpeg);

}
h1{
    color: #ffffdd0;
}
```

Figure 2.1.5.3 CSS Code for Question 1

## **2.1.6 Submission page**

For the submission page, we use bootstrap to design the table that review all of the question that already answered. At the bottom of the page, there is a navigation button that navigate the user to the question page that they click. The “confirm” button will navigate to the summary page that show the result of the CTES test. We use table inside the card to show the summary answer.

```
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css"
      integrity="sha384-ggOyR0iXcbMQv3Xipma34MD+dH/1fQ784/j6cYiJTQU0hcWr7x9JvoRxT2Mzw1T"
      crossorigin="anonymous">
    <link rel="stylesheet" href="../css/submission.css">

<title>Submission Page</title>
</head>

<body>
  <div class="container">
    <h1 class="mt-5">Review Question</h1>
```

Figure 2.1.6.1 HTML Code for Link to bootstrap and the Header part

```


| scope="col">No | scope="col">Answer | scope="col">Status | scope="col">Save |
|----------------|--------------------|--------------------|------------------|
| No answer      | Not answer         |                    |                  |
| No answer      | Not answer         |                    |                  |
| No answer      | Not answer         |                    |                  |
| No answer      | Not answer         |                    |                  |


```

Figure 2.1.6.2 Code for table part

```

<nav aria-label="Page navigation example" class="center-button">
  <ul class="pagination">
    <li class="page-item"><a class="page-link" href="q1.html">1</a></li>
    <li class="page-item"><a class="page-link" href="q2.html">2</a></li>
    <li class="page-item"><a class="page-link" href="q3.html">3</a></li>
    <li class="page-item"><a class="page-link" href="q4.html">4</a></li>
    <li class="page-item"><a class="page-link" href="q5.html">5</a></li>
    <li class="page-item"><a class="page-link" href="q6.html">6</a></li>
    <li class="page-item"><a class="page-link" href="q7.html">7</a></li>
    <li class="page-item"><a class="page-link" href="q8.html">8</a></li>
    <li class="page-item"><a class="page-link" href="q9.html">9</a></li>
    <li class="page-item"><a class="page-link" href="q10.html">10</a>
  </li> </ul>
</nav>

```

Figure 2.1.6.3 Code for navigation pages

```

<div class="container mt-5 text-center">
    <h1 class="h1">Thank you for your time</h1>
    <div class="card mt-5">
        <div class="card-body">
            <p style="font-size : 40px"> Summary of your attempts : <strong> 80 %</strong>
        </p>
        <table class="table table-striped">
            <tbody>
                <tr>
                    <th>Started on</th>
                    <td>Monday, 25 March 2019, 3:14 PM</td>
                </tr>
                <tr>
                    <th>State</th>
                    <td>Finished</td>
                </tr>
                <tr>
                    <th>Completed on</th>
                    <td>Monday, 25 March 2019, 3:41 PM</td>
                </tr>
                <tr>
                    <th>Time taken</th>
                    <td>26 mins 45 secs</td>
                </tr>
                <tr>
                    <th>Grade</th>
                    <td>4.00 out of 5.00 (80%)</td>
                </tr>
            </tbody>
        </table>
    </div>
</div>

<a href="index.html" class="btn btn-primary btn-lg mt-5">Done</a>
</div>

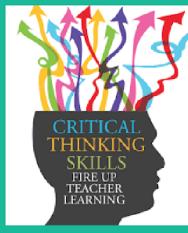
```

Figure 2.1.6.4 Code for result of the test

## **2.2 Graphical User Interface Design**

### **2.2.1 Home Page**

Critical Thinking Skills



If there was one life skill everyone on the planet needed, it was the ability to think with critical objectivity.  
—Josh Lanyon

[Get Started](#)

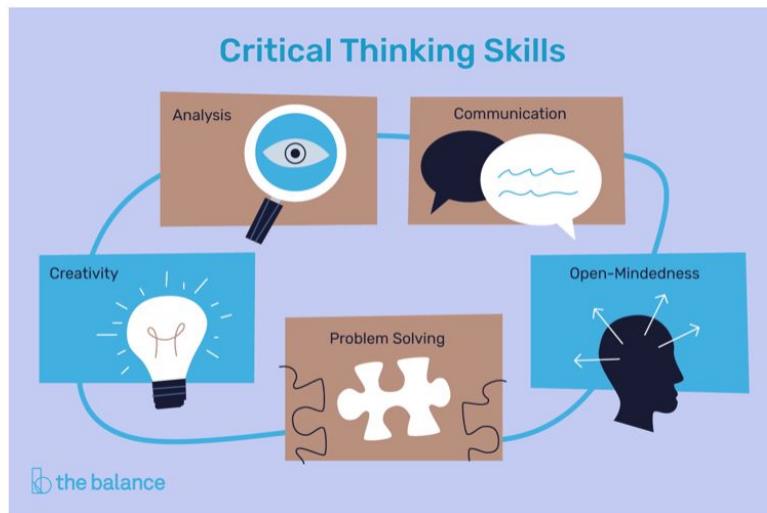
What is Critical Thinking?

The Skills We Need for Critical Thinking. The skills that we need in order to be able to think critically are varied and include observation, analysis, interpretation, reflection, evaluation, inference, explanation, problem solving, and decision making.

Figure 2.2.1.1

## About Critical Thinking

Critical thinking is thinking about things in certain ways so as to arrive at the best possible solution in the circumstances that the thinker is aware of.



Good critical thinkers can draw reasonable conclusions from a set of information and discriminate between useful and less useful details.

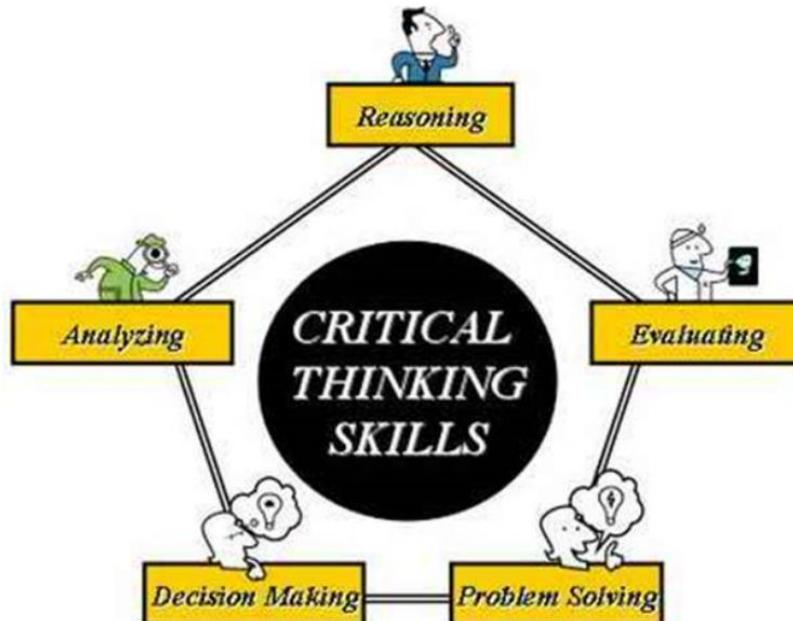


Figure 2.2.1.2

Critical thinking involves the evaluation of sources such as data, facts, observable phenomenon, and research findings.



Figure 2.2.1.3

## References

<https://www.skillsyouneed.com/learn/critical-thinking.html>

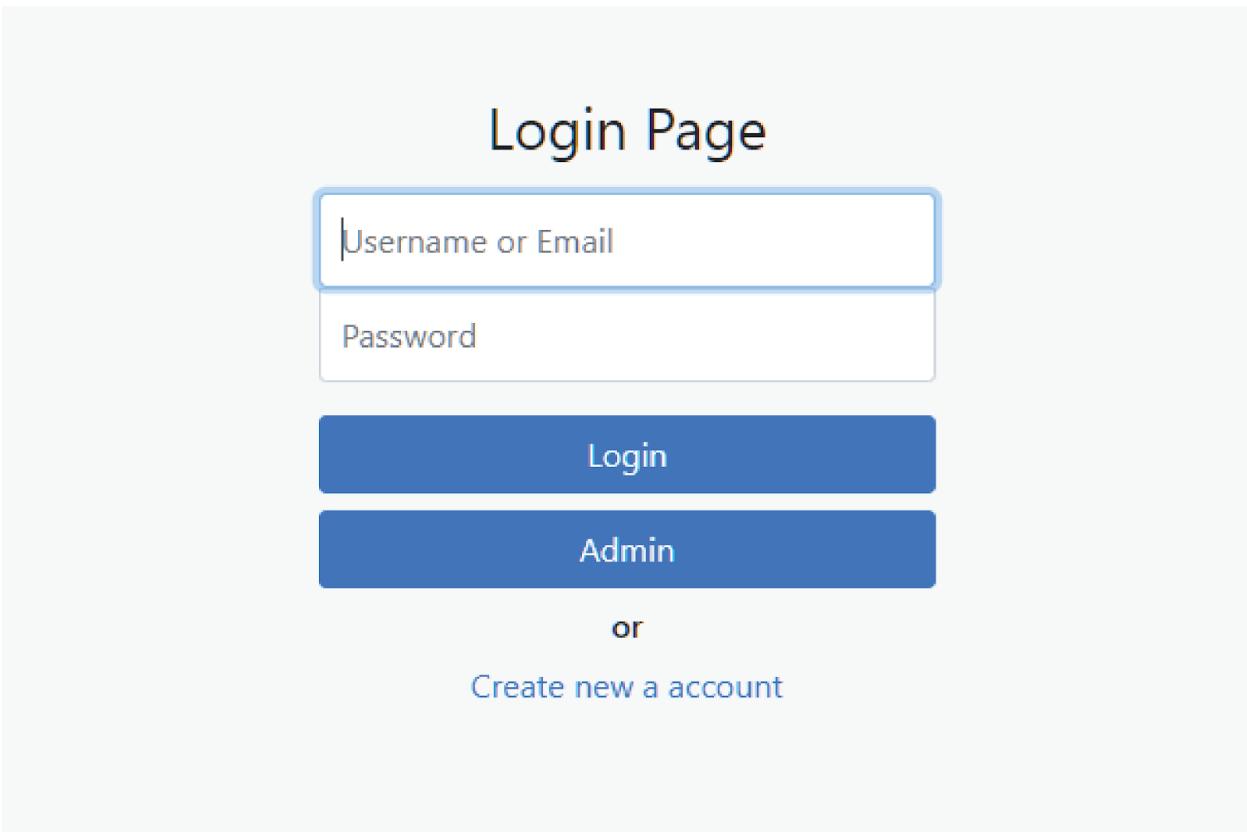
<https://www.thebalancecareers.com/critical-thinking-definition-with-examples-2063745>

<https://www.moddb.com/groups/critical-thinkers-of-moddb/images/critical-thinking-skills>

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Figure 2.2.1.4

## **2.2.2 Login Page**



The image shows a login page with a light gray background. At the top center, the words "Login Page" are written in a dark blue, sans-serif font. Below this, there is a light gray rectangular input field with a thin blue border. Inside the field, the placeholder text "Username or Email" is written in a smaller, gray font. Below the input field is another light gray rectangular input field with a thin blue border, containing the placeholder text "Password" in a smaller, gray font. Underneath these fields are two large, solid blue rectangular buttons. The top button contains the word "Login" in white, sans-serif font. The bottom button contains the word "Admin" in white, sans-serif font. In the center between the two blue buttons, the word "or" is written in a small, orange font. At the bottom center of the page, there is a link "Create new a account" written in a small, blue font.

Figure 2.2.2.1

### **2.2.3 Sign In Page**

**Sign In (Section A)**

Registration Number	Matric No.
Name of University	Name of University
Year of Study	Choose...
Gender	Choose...
Age Group	Choose...
Ethnic Group	Choose...
Nationality	Choose...

[Next](#) [Cancel](#)

Figure 2.2.3.1

### Past Years's Examination Results:

Year of Examination:

Semester:

[Add Subject](#)

GPA:  CGPA:

[Back](#) [Next](#) [Cancel](#)

Figure 2.2.3.2

### This Years's Examination Results:

Year of Examination:

Semester:

[Add Subject](#)

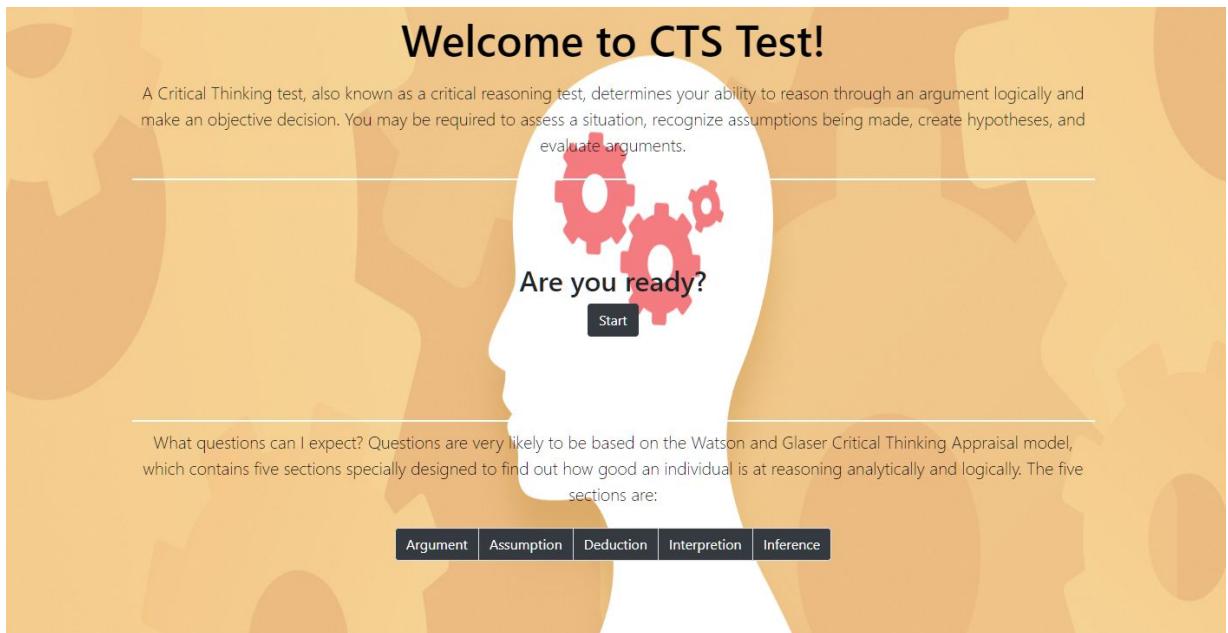
GPA:  CGPA:

[Back](#) [Cancel](#)

[Sign Up](#)

Figure 2.2.3.3

#### **2.2.4 Question landing page**



**Figure 2.2.4.1**

## Argument

In the argument section you are tested on your ability to distinguish between arguments that are strong and arguments that are weak. For an argument to be strong, it must be both important and directly related to the question. An argument is weak if it is not directly related to the question, of minor importance, or it confuses correlation with causation (which is incorrectly assuming that just because two things are related, they are the cause of each other).

An assumption is something we take for granted. People make many assumptions which may not necessarily be correct being able to identify these is a key aspect of critical reasoning. An assumption question will include a statement and a number of assumptions. You are required to identify whether an assumption has been made or not.

## Assumption

Figure 2.2.4.2

## Deduction

In deduction questions you have to draw conclusions based on only the information given in the question and not your own knowledge. You will be provided with a small passage of information and you will need to evaluate a conclusion made based on that passage. If the conclusion cannot be drawn from the information given, then the conclusion does not follow.

In these questions you are given a passage of information followed by a proposed conclusion. You are to regard the information you are given as true and decide whether the proposed conclusion logically and beyond doubt follows

## Interpretation

## Inference

Inference is a conclusion drawn from supposed or observed facts. It is information that does not appear directly in the given information, but is drawn from it. If, for instance, we go to a public restroom and find the door locked, we will assume/make the inference that it is occupied.

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— Source from <https://www.aptitude-test.com/critical-thinking.html>

Figure 2.2.4.3

## 2.2.5 Question page

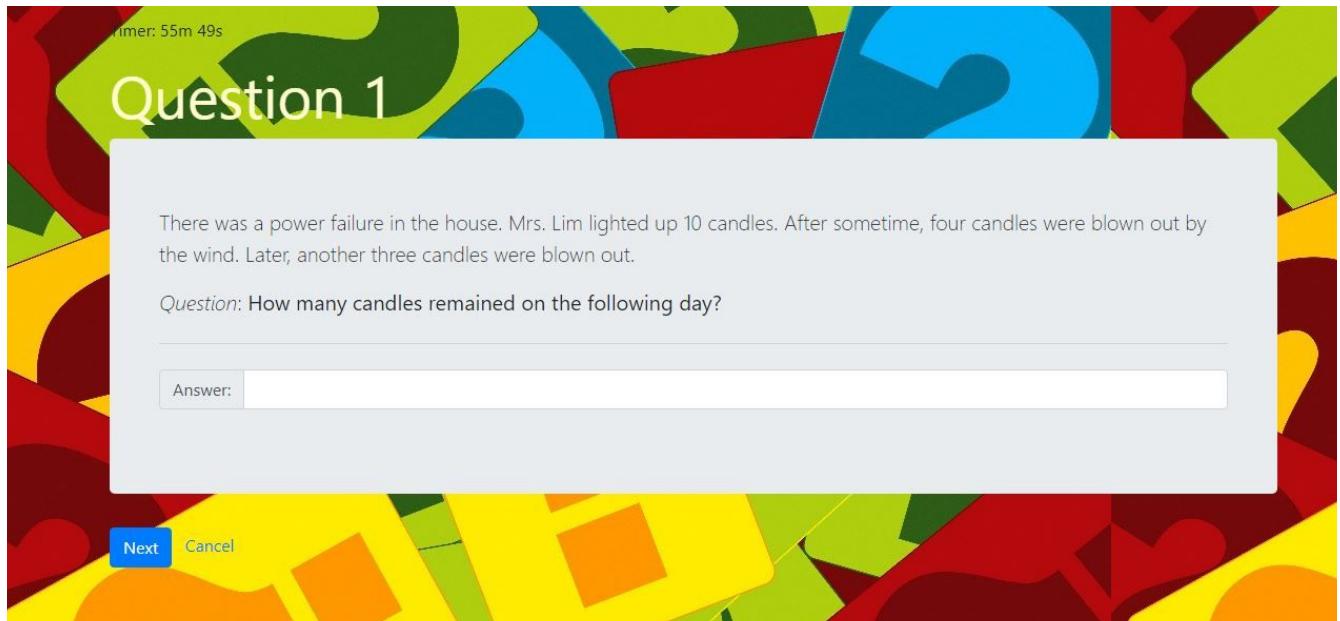


Figure 2.2.5.1

## 2.2.6 Submission page

## Review Question

No	Answer	Status	Save
1	No answer	Not answer	
2	No answer	Not answer	
3	No answer	Not answer	
4	No answer	Not answer	
5	No answer	Not answer	
6	No answer	Not answer	
7	No answer	Not answer	
9	No answer	Not answer	
10	No answer	Not answer	

Confirm

Cancel

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Figure 2.2.6.1 Submission page

**Thank you for your time**

**Summary of your attempts : 80 %**

<b>Started on</b>	Monday, 25 March 2019, 3:14 PM
-------------------	--------------------------------

<b>State</b>	Finished
--------------	----------

<b>Completed on</b>	Monday, 25 March 2019, 3:41 PM
---------------------	--------------------------------

<b>Time taken</b>	26 mins 45 secs
-------------------	-----------------

<b>Grade</b>	4.00 out of 5.00 (80%)
--------------	------------------------

**Done**

Figure 2.2.6.2 Summary of the test