Exercise 2 CSS

ส่วนที่ 1 Structuring HTML

1. สร้างไฟล์ index.html

Headings และ Sub-heading : เนื้อหามาจาก
https://en.wikipedia.org/wiki/Computer_science

a. Computer science

index.html 1

Users > sprdee > Downloads > CSTU-CS363-main > Lab02_GroupYY > CS369_Lab2_Part1 > index.html > html > body

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>CS369-Lab2-CSS</title>
</head>
<body>
    <!-- Computer science -->
    <h1 class="topic-heading heading">Computer science</h1>
    <p>
Computer science is the study of computation, information, and automation.
Included broadly in the sciences, computer science spans theoretical disciplines
(such as algorithms, theory of computation, and information theory) to applied disciplines
(including the design and implementation of hardware and software).
An expert in the field is known as a computer scientist.
Algorithms and data structures are central to computer science.
The theory of computation concerns abstract models of computation and
general classes of problems that can be solved using them. The fields of cryptography
and computer security involve studying the means for secure communication and
preventing security vulnerabilities. Computer graphics and computational geometry address
the generation of images. Programming language theory considers different ways to
describe computational processes, and database theory concerns
the management of repositories of data. Human-computer interaction investigates
the interfaces through which humans and computers interact, and software engineering focuses on
the design and principles behind developing software. Areas such as operating systems, networks and embedded systems investigate the principles
and design behind complex systems. Computer architecture describes the construction of computer components and computer-operated equipment. Artificial
intelligence and machine learning aim to synthesize goal-orientated processes such as problem-solving, decision-making, environmental adaptation, planning
learning found in humans
and animals. Within artificial intelligence, computer vision aims to understand and process image and video data, while natural language processing aims t
The fundamental concern of computer science is determining what can and cannot be automated.
The Turing Award is generally recognized as the highest distinction in computer science.</p>
```

b. History

```
    <!-- History -->
    <h1 class="topic-heading heading">History</h1>
    <p>
        The earliest foundations of what would become computer science predate the invention of the modern digital computer. Machines for calculating fixed numerical tasks such as the abacus have existed since antiquity, aiding in computations such as multiplication and division. Algorithms for performing computations have existed since antiquity, even before the development of sophisticated computing equipment.<br><br>
Wilhelm Schickard designed and constructed the first working mechanical calculator in 1623. In 1673, Gottfried Leibniz demonstrated a digital mechanical calculator, called the Stepped Reckoner. Leibniz may be considered the first computer scientist and information theorist, because of various reasons, including the fact that he documented the binary number system. In 1820, Thomas de Colmar launched the mechanical calculator industry when he invented his simplified arithmometer, the first calculating machine strong enough and reliable enough to be used daily in an office environment. Charles Babbage started the design of the first automatic mechanical calculator, his Difference Engine, in 1822, which eventually gave him the idea of the first programmable mechanical calculator, his Analytical Engine. He started developing this machine in 1834, and "in less than two years, he had sketched out many of the salient features of the modern computer". "A crucial step was the adoption of a punched card system derived from the Jacquard loom" making it infinitely programmable. In 1843, during the translation of a French article on the Analytical Engine, Ada Lovelace wrote, in one of the many notes she included, an algorithm to compute the Bernoulli numbers, which is considered to be the first published algorithm ever specifically tailored for implementation on a computer. Around 1885, Herman Hollerith invented the tabulator, which used punched cards to process statistical information; eventually his company became part of IBM. Following Babbage, although unaware of his earlier work, Percy Ludgate in 1909 published the 2nd of the only two designs for mechanical analytical engines in history. In 1914, the Spanish engineer Leonardo Torres Quevedo published his Essays on Automatics, and designed, inspired by Babbage, a theoretical electromechanical calculating machine which was to be controlled by a read-only program. The paper also introduced the idea of floating-point arithmetic. In 1920, to celebrate the 100th anniversary of the invention of the arithmometer, Torres presented in Paris the Electromechanical Arithmometer, a prototype that demonstrated the feasibility of an electromechanical analytical engine, on which commands could be typed and the results printed automatically. In 1937, one hundred years after Babbage's impossible dream, Howard Aiken convinced IBM, which was making all kinds of punched card equipment and was also in the calculator business to develop his giant programmable calculator, the ASCC/Harvard Mark I, based on Babbage's Analytical Engine, which itself used punched cards and a central processing unit. When the machine was finished, some hailed it as "Babbage's dream come true".<br><br>
During the 1940s, with the development of new and more powerful computing machines such as the Atanasoff–Berry computer and ENIAC, the term computer came to refer to the machines rather than their human predecessors. As it became clear that computers could be used for more than just mathematical calculations, the field of computer science broadened to study computation in general. In 1945, IBM founded the Watson Scientific Computing Laboratory at Columbia University in New York City. The renovated fraternity house on Manhattan's West Side was IBM's first laboratory devoted to pure science. The lab is the forerunner of IBM's Research Division, which today operates research facilities around the world. Ultimately, the close relationship between IBM and Columbia University was instrumental in the emergence of a new scientific discipline, with Columbia offering one of the first academic-credit courses in computer science in 1946. Computer science began to be established as a distinct academic discipline in the 1950s and early 1960s. The world's first computer science degree program, the Cambridge Diploma in Computer Science, began at the University of Cambridge Computer Laboratory in 1953. The first computer science department in the United States was formed at Purdue University in 1962. Since practical computers became available, many applications of computing have become distinct areas of study in their own rights.
    </p>
```

c. Philosophy

i. Epistemology of computer science

```
    <!-- Philosophy -->
    <h1 class="topic-heading heading">Philosophy</h1>

    <!-- Sub-headings Philosophy -->
    <h2 class="topic-heading">Epistemology of computer science</h2>
    <p>
        Despite the word science in its name, there is debate over whether or not computer science is a discipline of science, mathematics, or engineering. Allen Newell and Herbert A. Simon argued in 1975,<br><br>
Computer science is an empirical discipline. We would have called it an experimental science, but like astronomy, economics, and geology, some of its unique forms of observation and experience do not fit a narrow stereotype of the experimental method. Nonetheless, they are experiments. Each new machine that is built is an experiment. Actually constructing the machine poses a question to nature; and we listen for the answer by observing the machine in operation and analyzing it by all analytical and measurement means available.<br><br>
It has since been argued that computer science can be classified as an empirical science since it makes use of empirical testing to evaluate the correctness of programs, but a problem remains in defining the laws and theorems of computer science (if any exist) and defining the nature of experiments in computer science. Proponents of classifying computer science as an engineering discipline argue that the reliability of computational systems is investigated in the same way as bridges in civil engineering and airplanes in aerospace engineering. They also argue that while empirical sciences observe what presently exists, computer science observes what is possible to exist and while scientists discover laws from observation, no proper laws have been found in computer science and it is instead concerned with creating phenomena.<br><br>
Proponents of classifying computer science as a mathematical discipline argue that computer programs are physical realizations of mathematical entities and programs that can be deductively reasoned through mathematical formal methods. Computer scientists Edsger W. Dijkstra and Tony Hoare regard instructions for computer programs as mathematical sentences and interpret formal semantics for programming languages as mathematical axiomatic systems.
    </p>
```

ii. Paradigms of computer science

```
    <h2 class="topic-heading">Paradigms of computer science</h2>
    <p>
        A number of computer scientists have argued for the distinction of three separate paradigms in computer science. Peter Wegner argued that those paradigms are science, technology, and mathematics. Peter Denning's working group argued that they are theory, abstraction (modeling), and design. Amnon H. Eden described them as the "rationalist paradigm" (which treats computer science as a branch of mathematics, which is prevalent in theoretical computer science, and mainly employs deductive reasoning), the "technocratic paradigm" (which might be found in engineering approaches, most prominently in software engineering), and the "scientific paradigm" (which approaches computer-related artifacts from the empirical perspective of natural sciences, identifiable in some branches of artificial intelligence). Computer science focuses on methods involved in design, specification, programming, verification, implementation and testing of human-made computing systems.
    </p>
```

d. Fields

i. Theoretical computer science

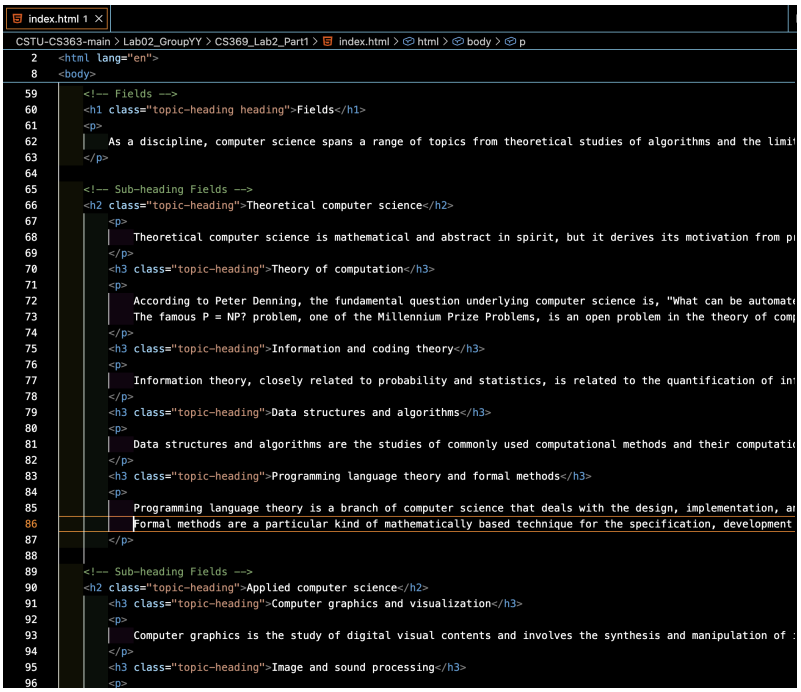
1. Theory of computation
2. Information and coding theory
3. Data structures and algorithms
4. Programming language theory and formal methods

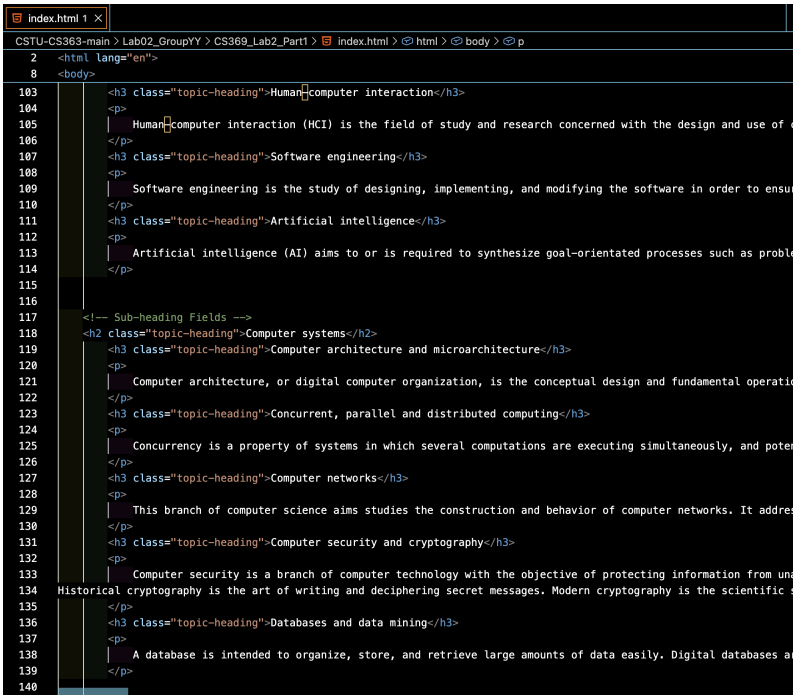
ii. Applied computer science

1. Computer graphics and visualization
2. Image and sound processing
3. Computational science, finance and engineering
4. Human–computer interaction
5. Software engineering
6. Artificial intelligence

iii. Computer systems

1. Computer architecture and microarchitecture
2. Concurrent, parallel and distributed computing
3. Computer networks
4. Computer security and cryptography
5. Databases and data mining





e. เว็บไซต์ที่เกี่ยวข้อง

```
    <!-- เว็บไซต์ที่เกี่ยวข้อง -->
    <h1 class="topic-heading heading">เว็บไซต์ที่เกี่ยวข้อง</h1>
    <ul>
        <!--List of computer scientists (มี id="list-cs"อันเดียว) -->
        <li id="list-cs">
            List of computer scientists:
            <a href="https://en.wikipedia.org/wiki/List_of_computer_scientists" target="_blank">Wikipedia Link</a>
            |
            <a href="https://cs.sci.tu.ac.th/about-faculty-th-2/" target="_blank">เว็บคณะ</a>
        </li>

        <!--List of computer science awards -->
        <li>
            List of computer science awards:
            <a href="https://en.wikipedia.org/wiki/List_of_computer_science_awards" target="_blank">Wikipedia Link</a>
        </li>

        <!--List of pioneers in computer science -->
        <li>
            List of pioneers in computer science:
            <a href="https://en.wikipedia.org/wiki/List_of_pioneers_in_computer_science" target="_blank">Wikipedia Link</a>
        </li>
    </ul>
    <hr>
    <a href="about.html" style="display: block; text-align: center; margin-top: 10px;">สมาชิกภายในกลุ่ม</a>

</body>
</html>
```

f. สมาชิกภายในกลุ่ม ที่เชื่อมไปยัง about.html

-index.html

```
    <hr>
    <a href="about.html" style="display: block; text-align: center; margin-top: 10px;">สมาชิกภายในกลุ่ม</a>

</body>
</html>
```

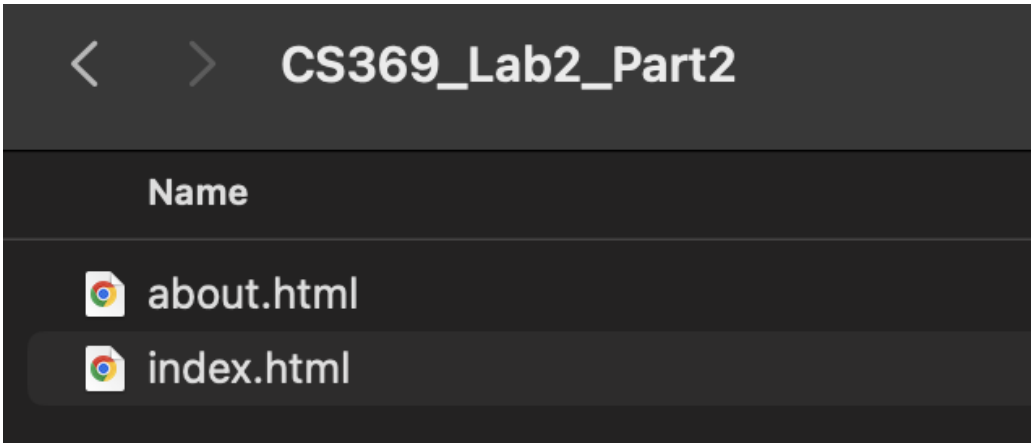
-about.html

สมาชิกภายในกลุ่ม

เลขทะเบียน	ชื่อ-นามสกุล	ชื่อเล่น	เลข Running Number
6609650228	นายจุติณัฏฐ์ รัตนะมงคลกุล	บอมบ์	22
6609650590	นายภูวฤทธิ์ เจริญพล	เติร์ด	45
6609650624	นายรพินทร์ นะราช	เอม	21
6609650665	นายศุภณัฐ ตั้งกจิวุฒิกุล	โปโล	44
6609650699	นายสุทธิพจน์ ประทุมทอง	เอม	24
6609650707	นายสุรบดี ผาสุข	ไม้	23

ส่วนที่ 2 Basic CSS

1.สร้าง Folder และตั้งชื่อว่า CS369_Lab2_Part2 พร้อมCopy ไฟล์ index.html และ about.html



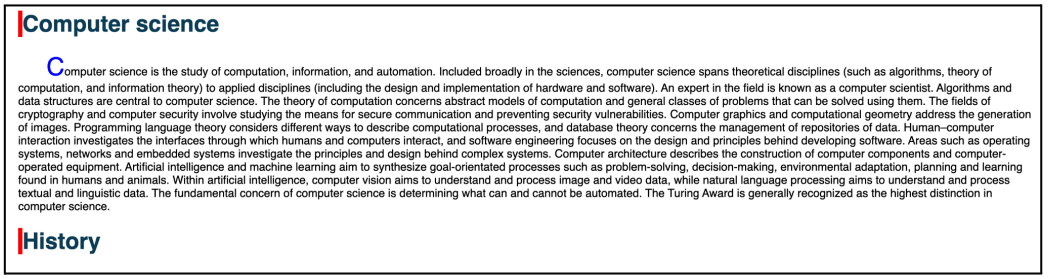
2.Styling โดยใช้ CSS ใน tag <head>

```
<html lang="en">
<head>
    <style>
        p::first-letter {
            color: blue;
        }

        p:hover {
            font-size: 26px;
            color: red;
        }

        .heading {
            color: #0D3D56 !important;
        }

        a:link {
            color: blueviolet;
            text-decoration: underline dotted red;
        }

        a:visited {
            color: gray;
            text-decoration: underline dotted blue;
        }

        li a {
            background-color: aquamarine;
        }

        body {
            font-family: sans-serif;
            margin: 20px;
        }
    </style>
</head>
<body>
```

3.ผลลัพธ์บนเว็บ browser

- index.html with Style

ผลลัพธ์ก่อนลากเมาส์

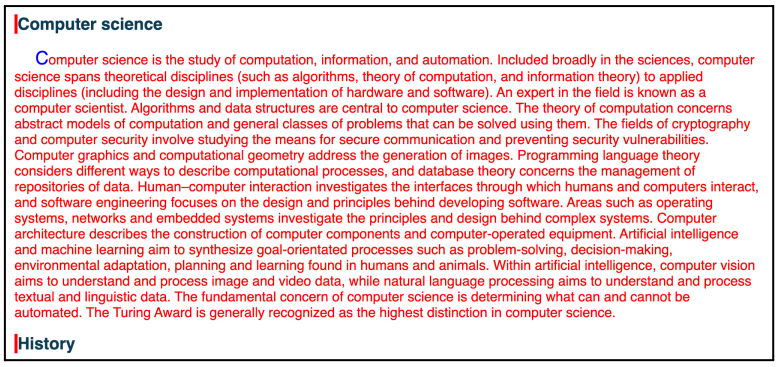


Computer science

Computer science is the study of computation, information, and automation. Included broadly in the sciences, computer science spans theoretical disciplines (such as algorithms, theory of computation, and information theory) to applied disciplines (including the design and implementation of hardware and software). An expert in the field is known as a computer scientist. Algorithms and data structures are central to computer science. The theory of computation concerns abstract models of computation and general classes of problems that can be solved using them. The fields of cryptography and computer security involve studying the means for secure communication and preventing security vulnerabilities. Computer graphics and computational geometry address the generation of images. Programming language theory considers different ways to describe computational processes, and database theory concerns the management of repositories of data. Human–computer interaction investigates the interfaces through which humans and computers interact, and software engineering focuses on the design and principles behind developing software. Areas such as operating systems, networks and embedded systems investigate the principles and design behind complex systems. Computer architecture describes the construction of computer components and computer-operated equipment. Artificial intelligence and machine learning aim to synthesize goal-orientated processes such as problem-solving, decision-making, environmental adaptation, planning and learning found in humans and animals. Within artificial intelligence, computer vision aims to understand and process image and video data, while natural language processing aims to understand and process textual and linguistic data. The fundamental concern of computer science is determining what can and cannot be automated. The Turing Award is generally recognized as the highest distinction in computer science.

History

ผลลัพธ์ก่อนลากเมาส์



Computer science

Computer science is the study of computation, information, and automation. Included broadly in the sciences, computer science spans theoretical disciplines (such as algorithms, theory of computation, and information theory) to applied disciplines (including the design and implementation of hardware and software). An expert in the field is known as a computer scientist. Algorithms and data structures are central to computer science. The theory of computation concerns abstract models of computation and general classes of problems that can be solved using them. The fields of cryptography and computer security involve studying the means for secure communication and preventing security vulnerabilities. Computer graphics and computational geometry address the generation of images. Programming language theory considers different ways to describe computational processes, and database theory concerns the management of repositories of data. Human–computer interaction investigates the interfaces through which humans and computers interact, and software engineering focuses on the design and principles behind developing software. Areas such as operating systems, networks and embedded systems investigate the principles and design behind complex systems. Computer architecture describes the construction of computer components and computer-operated equipment. Artificial intelligence and machine learning aim to synthesize goal-orientated processes such as problem-solving, decision-making, environmental adaptation, planning and learning found in humans and animals. Within artificial intelligence, computer vision aims to understand and process image and video data, while natural language processing aims to understand and process textual and linguistic data. The fundamental concern of computer science is determining what can and cannot be automated. The Turing Award is generally recognized as the highest distinction in computer science.

History

ผลลัพธ์เมื่อทำการคลิกที่ลิงค์ไปแล้วจะเปลี่ยนสี

เว็บไซต์ที่เกี่ยวข้อง

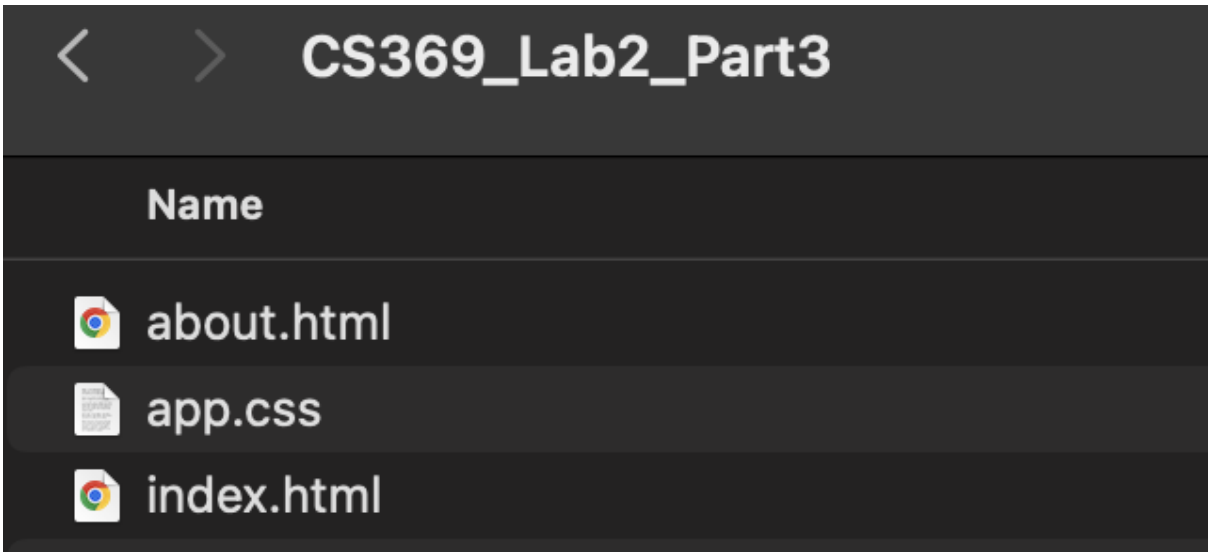
- List of computer scientists: Wikipedia Link | เว็บคณะ
- List of computer science awards: Wikipedia Link
- List of pioneers in computer science: Wikipedia Link

สมาชิกภายในกลุ่ม

https://en.wikipedia.org/wiki/List_of_computer_scientists

ส่วนที่ 3 Basic CSS - 2

1. สร้าง Folder และตั้งชื่อว่า CS369_Lab2_Part3



2. กำหนด styling ของเอกสาร index.html ลิงก์มาที่ไฟล์ app.css

- index.html with link to app.css

index.html 1 | app.css 1

CS369_Lab2_Part3 > index.html > html > body > h1.topic-heading.heading

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>CS369-Lab2-CSS</title>
    <link rel="stylesheet" href="app.css">
</head>
<body>
    <!-- Computer science -->
    <h1 class="topic-heading heading">Computer science</h1>
    <p>
Computer science is the study of computation, information, and automation.
Included broadly in the sciences, computer science spans theoretical disciplines
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 and animals. Within artificial intelligence, computer vision aims to understand and process image and video data, wh
The fundamental concern of computer science is determining what can and cannot be automated.
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```

ส่วนที่ 4 Basic CSS - 3

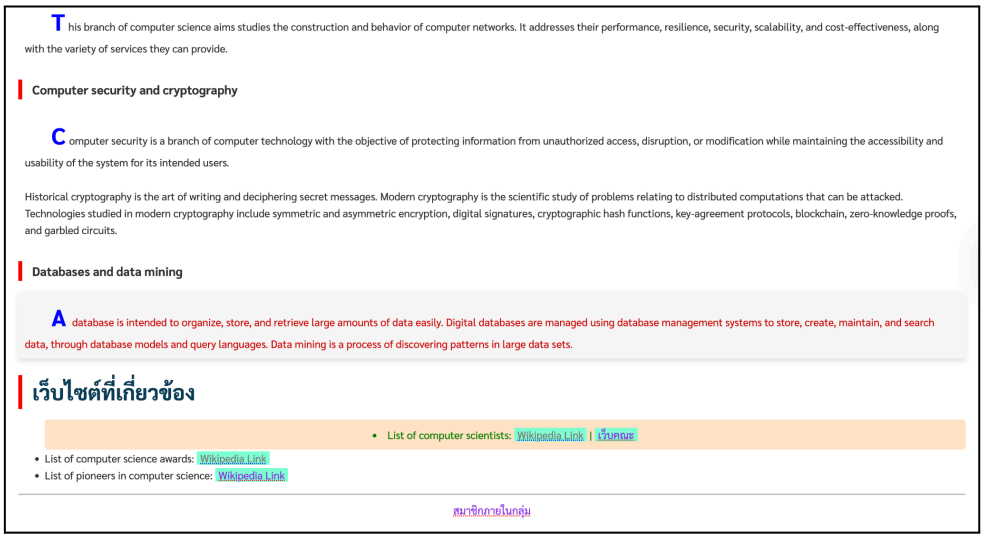
1.ส่วนของโค้ดที่ได้รับการปรับปรุงให้ดีขึ้น

index.html 1 | app.css 1

CSTU-CS363-main > Lab02_GroupYY > CS369_Lab2_Part4 > app.css > body

```
body {
    font-family: 'Sarabun', 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif; /* เพิ่ม Font ที่รองรับภาษาไทย */
    margin: 20px;
    line-height: 1.6; /* ปรับระยะห่างบรรทัดให้อ่านง่ายขึ้น */
    color: #333;      /* เปลี่ยนสีดำสนิทเป็นสีเทาเข้มเพื่อถนอมสายตา */
}

#list-cs {
    background-color: bisque;
    text-align: center;
    color: green;
    padding: 10px;        /* เพิ่มพื้นที่รอบข้อความไม่ให้ชิดขอบ */
    border-radius: 5px;   /* ลบมุมให้ดูนุ่มนวลขึ้น */
    list-style-position: inside; /* จัด bullet ให้อยู่ด้านใน */
}

.topic-heading {
    border-left: 6px solid red;
    padding-left: 15px;   /* เว้นระยะห่างจากเส้นขอบแดง */
    margin-top: 25px;     /* เว้นระยะห่างจากเนื้อหาก่อนหน้า */
    margin-bottom: 15px;
}

.heading {
    color: #0D3D56 !important;
}

p {
    text-indent: 40px;
    transition: all 0.3s ease; /* เพิ่มการเคลื่อนที่ให้ดูลื่นไหล */
    padding: 10px;             /* เพิ่มพื้นที่เล็กๆสำหรับการทำ Hover */
    border-radius: 5px;
}

p::first-letter {
    font-size: 35px;
    color: blue;
    font-weight: bold;
    margin-right: 5px;
}
```

-ผลลัพธ์ใหม่หลังปรับ css



2.อธิบาย css ที่เพิ่มเข้ามา

ไฟล์ app.css

- กำหนดค่าพื้นฐานของ Body
  - เพิ่ม Font ที่รองรับภาษาไทย
  - ปรับระยะห่างบรรทัดให้อ่านง่ายขึ้น
  - เปลี่ยนสีดำสนิทเป็นสีเทาเข้มเพื่อถนอมสายตา
- ส่วนหัวข้อที่มีพื้นหลัง
  - เพิ่มพื้นที่รอบข้อความไม่ให้ชิดขอบ
  - ลบมุมให้ดูนุ่มนวลขึ้น
  - จัด bullet ให้อยู่ด้านใน
- IMPROVEMENT: ปรับปรุง Heading
  - เว้นระยะห่างจากเส้นขอบแดง
  - เว้นระยะห่างจากเนื้อหาก่อนหน้า
- การจัดการย่อหน้า
  - เพิ่มการเคลื่อนที่ให้ดูลื่นไหล
  - เพิ่มพื้นที่เล็ก ๆ สำหรับการทำ Hover

- แก้ไขปัญหา Layout Shift
  - เปลี่ยนเป็นสีพื้นหลังอ่อนๆ แทน
  - เปลี่ยนสีตัวอักษรเป็นแดงเข้ม
  - เพิ่มเงาให้ดูลอยเด่นขึ้น
- การจัดการ Link
  - ลบเส้นใต้ออกเมื่อเอาเมาส์ชี้
  - เพิ่มระยะห่างให้ Link ใน List

- เพิ่ม CSS สำหรับตาราง (Table) ในหน้า about.html
    - รวมเส้นขอบตารางให้เป็นเส้นเดียว
    - ใช้สีเดียวกับ Heading หลัก
    - ทำสีสลับบรรทัด
    - เปลี่ยนสีแถวเมื่อเอาเมาส์ชี้

รายชื่อสมาชิก

(หัวหน้ากลุ่ม) นายภูวฤทธิ์ เจริญพล 6609650590
เลขที่ในห้อง: 45
% การมีส่วนร่วม: 25%
ความรับผิดชอบของการทำแบบฝึกหัด: จัดวางโครงสร้าง topic-heading, heading,tag p ในส่วนของpart1 และร่วมbasic css part2,แบ่งงานเพื่อน

นาย จุติณัฏฐ์ รัตนะมงคลกุล 6609650228
เลขที่ในห้อง: 22
% การมีส่วนร่วม: 15%
ความรับผิดชอบของการทำแบบฝึกหัด: จัดทำส่วนที่ 4

นาย รพินทร์ นะราช 6609650624
เลขที่ในห้อง: 21
% การมีส่วนร่วม: 15%
ความรับผิดชอบของการทำแบบฝึกหัด: จัดทำ เอกสาร 50%

นาย นายศุภณัฐ ตั้งกจิวุฒิกุล 6609650665
เลขที่ในห้อง: 44
% การมีส่วนร่วม: 15%
ความรับผิดชอบของการทำแบบฝึกหัด: basic css part2

นาย สุทธิพจน์ ประทุมทอง 6609650699
เลขที่ในห้อง: 24
% การมีส่วนร่วม: 15%
ความรับผิดชอบของการทำแบบฝึกหัด: ใส่เนื้อหาลงในส่วนที่ 1

นาย สุรบดี ผาสุข 6609650707
เลขที่ในห้อง: 23
% การมีส่วนร่วม: 15%
ความรับผิดชอบของการทำแบบฝึกหัด: จัดทำส่วนที่ 3 และทำเอกสาร 50%