Technical documentation made for *"Ecosystems Coursework 2"* made by **Baciu Nichita**.

Task 1.

This task is relatively easy. First we need to create an HTML file with basic tags as <body>, <h1> etc.:

```html
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>Compuer Science Ecosystems</title>
7   </head>
8   <body>
9       <div class="topPage">
10          <h1>Made for <i>Coursework Semester 2</i></h1>
11          <h2>By Baciu Nichita</h2>
12      </div>
13  </body>
14  </html>
```

Then we create a button with an "id" attribute that we will modify in the future:

```html
<div id="mainButton">
    <button  id="mainButtonText">Click Me</button>
</div>
```

Then we link create CSS file to make our page *beautiful*:

```css
#mainButton {
    display: flex;
    justify-content: center;
    align-items: center;
    height: 80vh;
}

button {
    font-size: 120px;
    background-color: lightskyblue;
    border: none;
    border-radius: 150px;
    cursor: pointer;
    width: 600px;
    height: 320px;
}

.topPage {
    padding: 10px;
    margin-left: 30px;
}

h1 {
    margin-bottom: -20px;
}

h2 {
    margin-left: 30px;
}
```

Next step is to create two JS files "listener" to make a script for our button to change text inside it and "operations" to test JS operation in the console.

```js
const button = document.getElementById("mainButtonText");

button.addEventListener("click", function() {
    button.innerText = "Thanks!";
});
```

```js
var a = 5;
var b = 100;


console.log('Is a > b?', a > b);
console.log('Is a < b?', a < b);
console.log('Is a === b?', a === b);
console.log('Is a !== b?', a !== b);
console.log('Is a <= b?', a <= b);
console.log('Is a >= b?', a >= b);
```

Then we link and add our scripts into HTML file and it's done.

Task 2.

To complete this task we firstly need to link all this libraries: amsmath, amsthm, amsfonts, amssymb, geometry, graphicx, natbib.

Then we use basic tags "\begin", "\end" etc, and mathematical formulas like "\(c^2\)".

Also we need to create BibTeX file to use it as a reference in our article.

```
@article{Shakespeare,
  author = {William Shakespeare},
  title = {Romeo and Juliet.},
  year = {1597},
}
```

In the end we need to add a few pictures into our theorem proof with graphicx library so it would like this:

Proof. Given any right triangle with legs a and b and hypotenuse c like the above, use four of them to make a square with sides a+b as shown below:
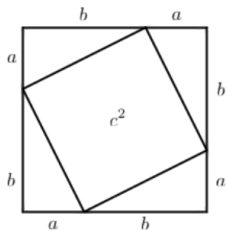
Task 3.

The third one is easiest we need to create a XML Movie Collection. To make this we will use VS Code to write it, and online validator to make sure it's correct.

First we need to constant XML version and alphabet.

Second we need to create "MovieCollection" family.
The last step is to create three items of class "movie" with 4 attributes:
Title, Author, PublicationYear and Description.