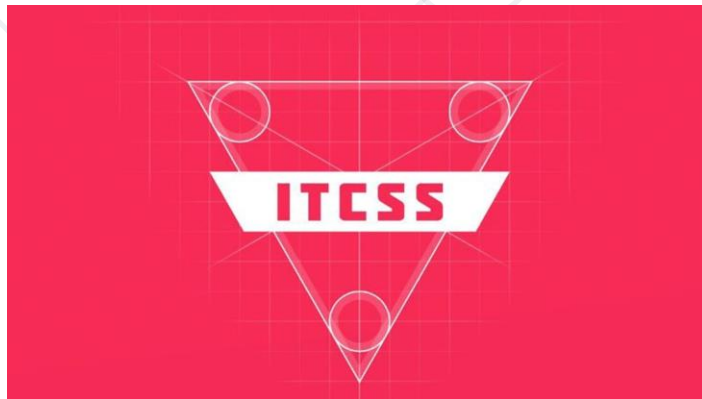


# CSS Architecture – ITCSS

## Inverted Triangle CSS



SoftUni Team  
Technical Trainers



**SoftUni**



Software University

<https://softuni.org>

1. Challenges for CSS

2. What is ITCSS?


3. ITCSS Layers

- Settings
- Tools
- Generic
- Elements
- Components
- Objects
- Utilities



sli.do

#front-end



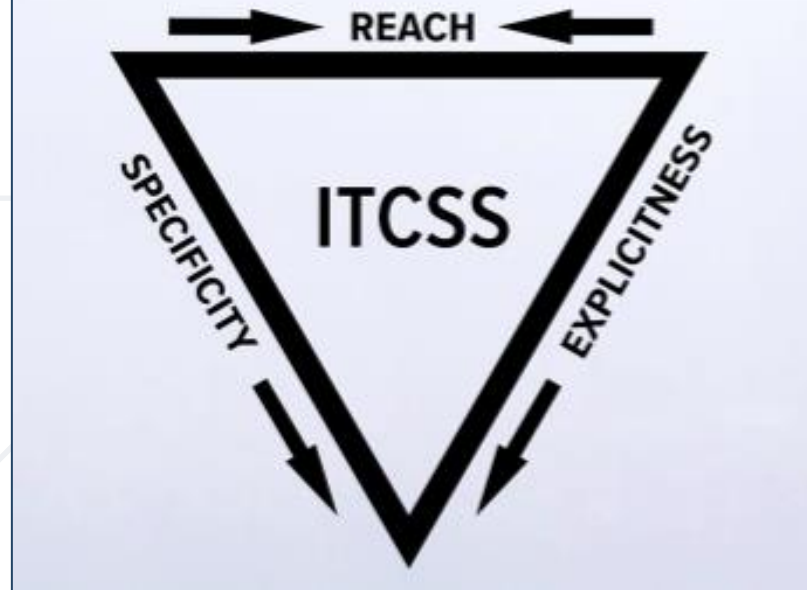
**CSS  
IS  
AWESOME**

**Most Common CSS and Developers  
Problems**

- **Cascade and Inheritance**
  - Touch something at one place breaks it in all other places (because CSS is **global**)
- **Source order**
  - Moving CSS around can have **unwanted impact**
- **Specificity**
  - Selectors are way too **specific**

- No structure & No layers
- Designers, Back-End Developers, all touch CSS
- Lack of knowledge
- Adding styles to the end of a stylesheet
- Usually write more CSS to undo previous CSS styles

# Write Better CSS



## Inverted Triangle CSS

# What is ITCSS?

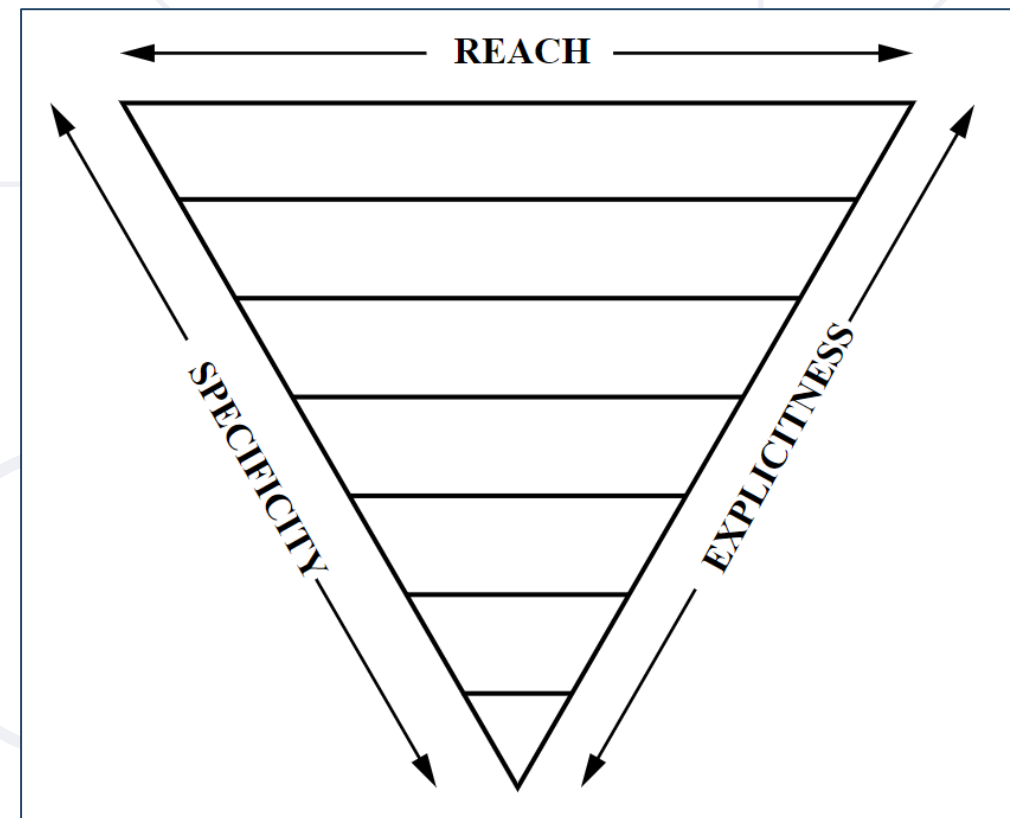
- **Inverted Triangle** architecture for CSS
- A sane, scalable, **managed architecture**
- A **meta framework**
- It can be used with **preprocessors** or without them
  - It's compatible with **CSS methodologies** like BEM, SMACSS or OOCSS

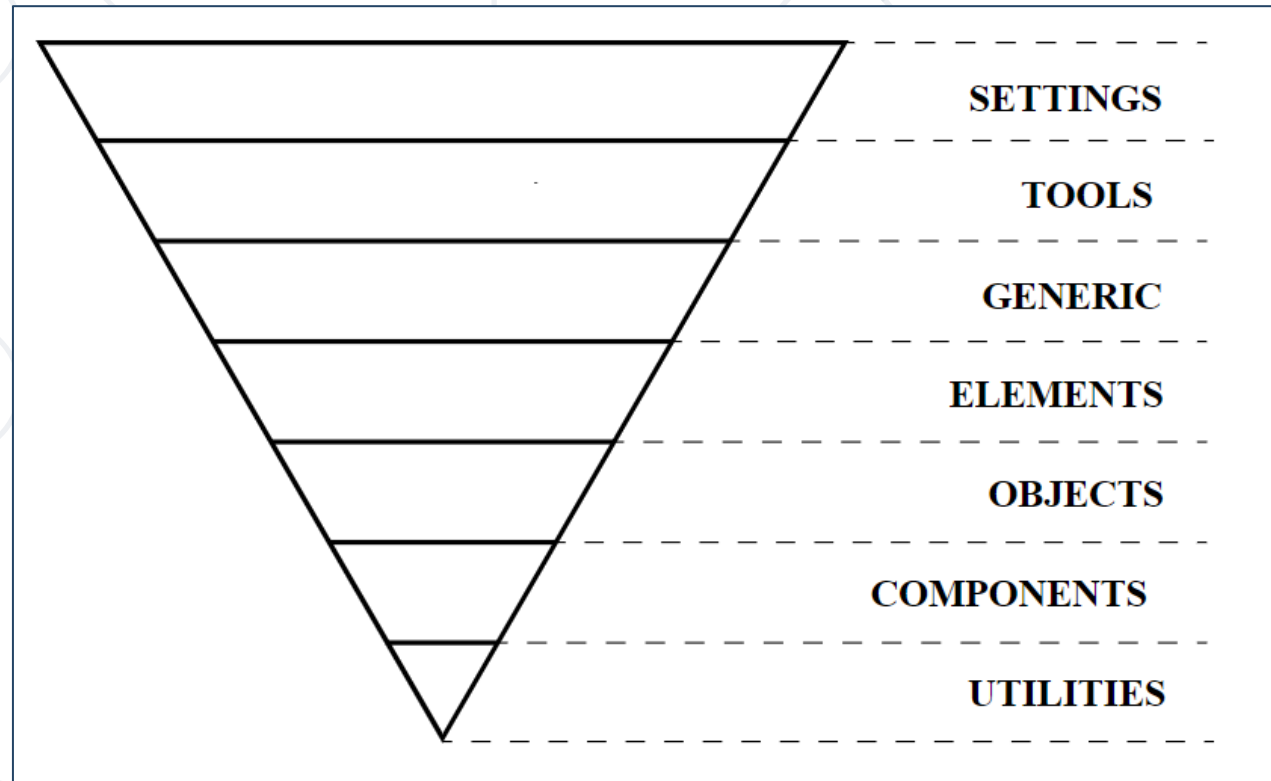




# What is ITCSS?

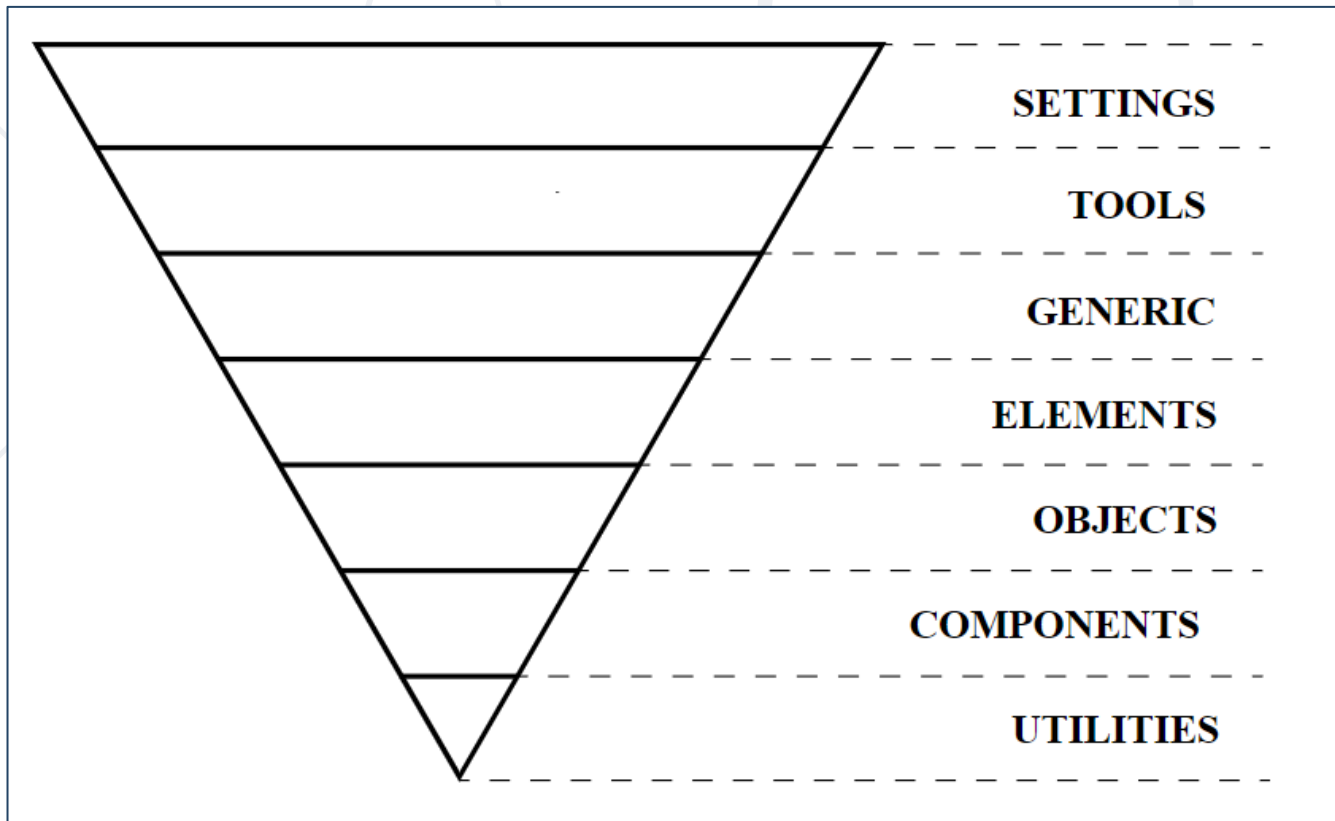
- How styles represented by selectors are **ordered** in the resulting CSS
  - From **generic styles** to **explicit** ones
  - From **low-specificity** selectors to **more specific** ones (but still not too specific, IDs are not allowed)
  - From far reaching to localized ones



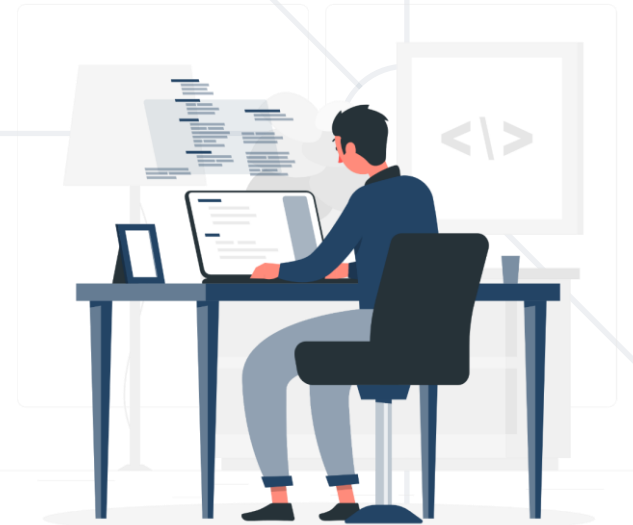


# Inverted Triangle CSS

- It separates your CSS codebase to several sections (called **layers**), which take the form of the inverted triangle:



- **Settings** - used with preprocessors and contain **font, colors definitions**, etc.
- **Tools** - globally used **mixins** and **functions**
  - It's important **not to output** any CSS in the first 2 layers



- **Generic** - **reset** and/or **normalize** styles, **box-sizing** definition, etc.
  - This is the first layer which **generates actual CSS**

```
html {  
  box-sizing: border-box;  
  height: 100%;  
}  
  
*, *:before, *:after {  
  box-sizing: inherit;  
}
```

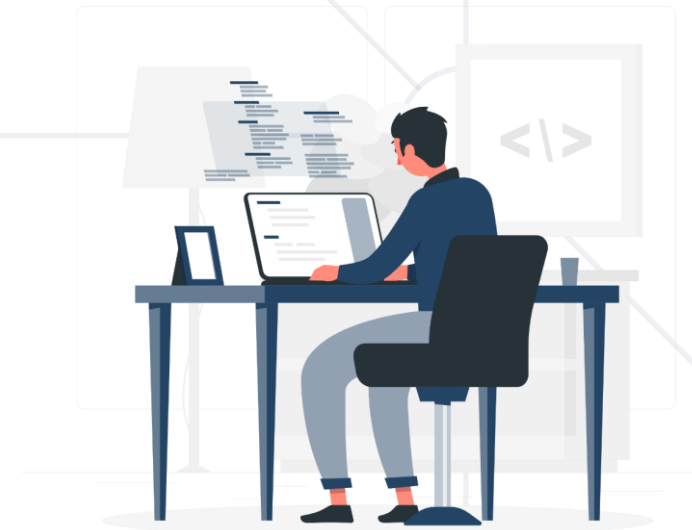
- **Elements** - styling for **bare HTML elements** (like **h1**, **a**, etc.)
  - Come with default styling from the browser so we can redefine them

```
a {  
  font-size: 16px;  
  font-family: 'Lato', sans-serif;  
  font-weight: 500;  
  text-decoration: none;  
}  
  
a:hover {  
  text-decoration: underline;  
}
```

- **Components** - specific **UI components**
  - This is where most of the work takes place

```
.card-wrapper {  
  cursor: pointer;  
  border-radius: 8px;  
}  
  
.card-wrapper:hover {  
  text-decoration: none;  
}
```

- **Objects - class-based selectors** which define undecorated design patterns
- **Utilities - utilities** and **helper** classes with ability to **override** anything which goes before in the triangle, e.g. hide helper class

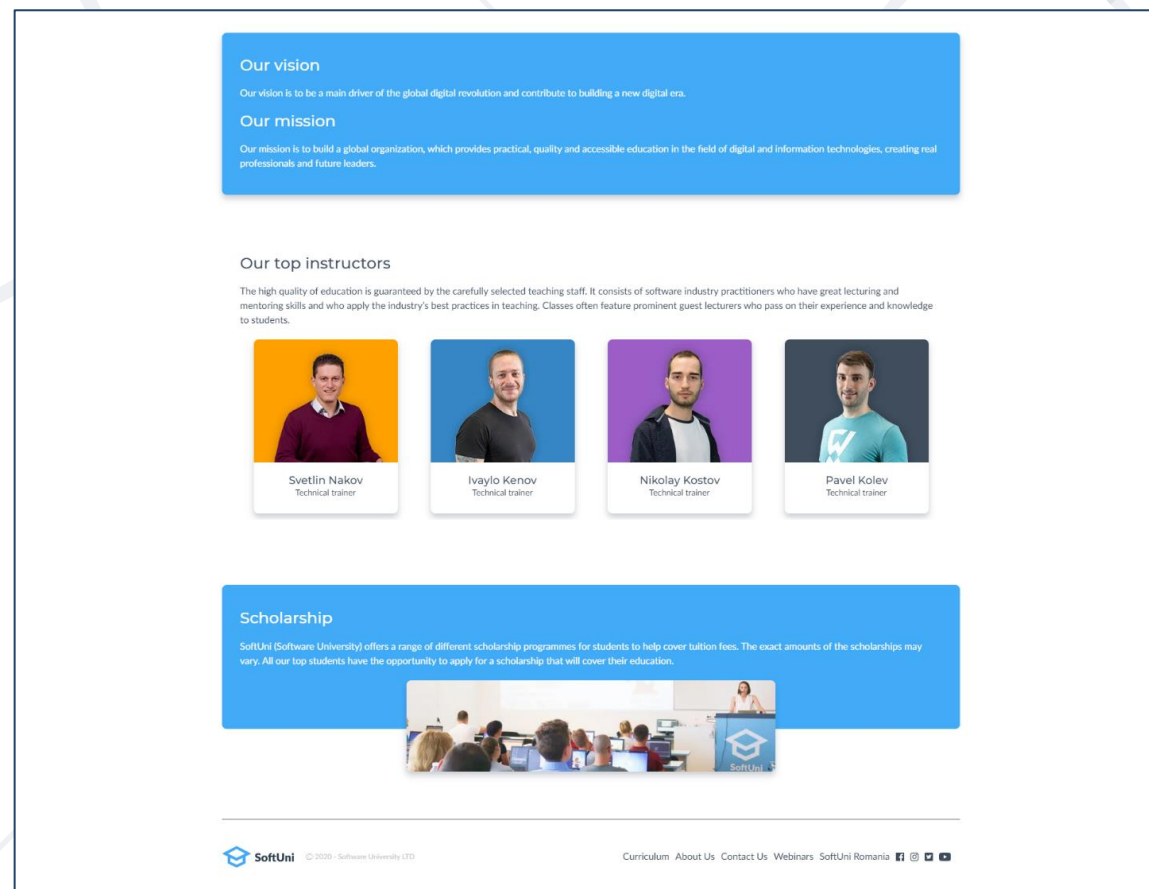
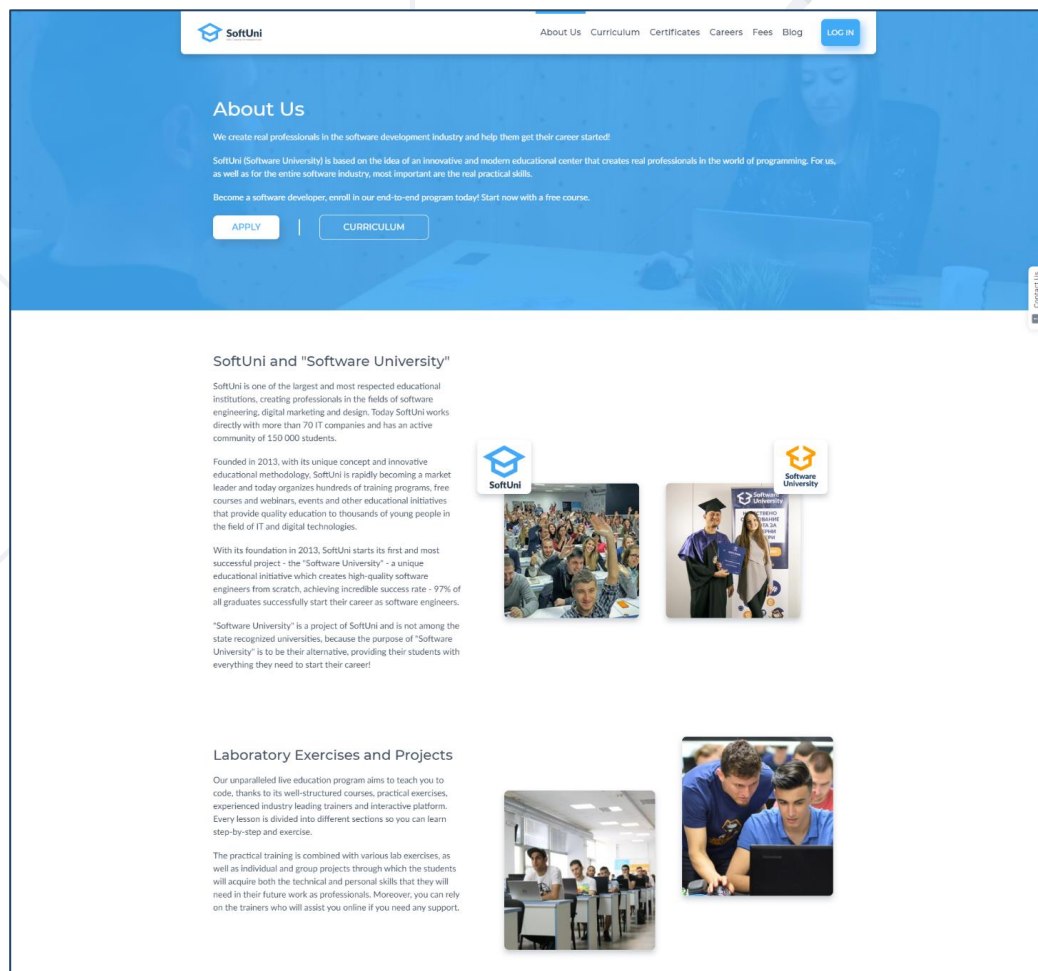




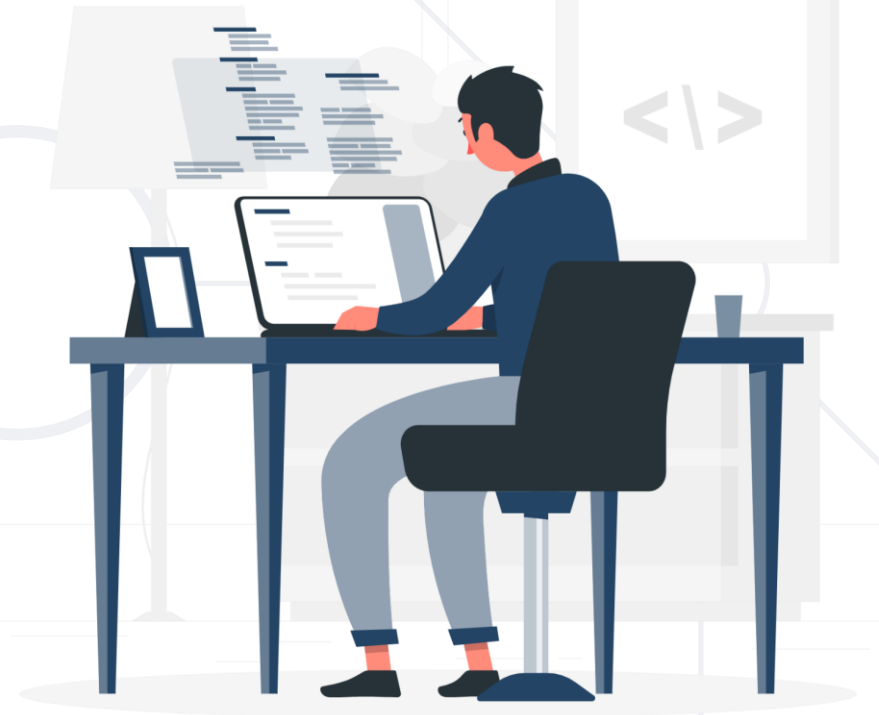


# Practical Exercises

- Create the following page using the ITCSS architecture:



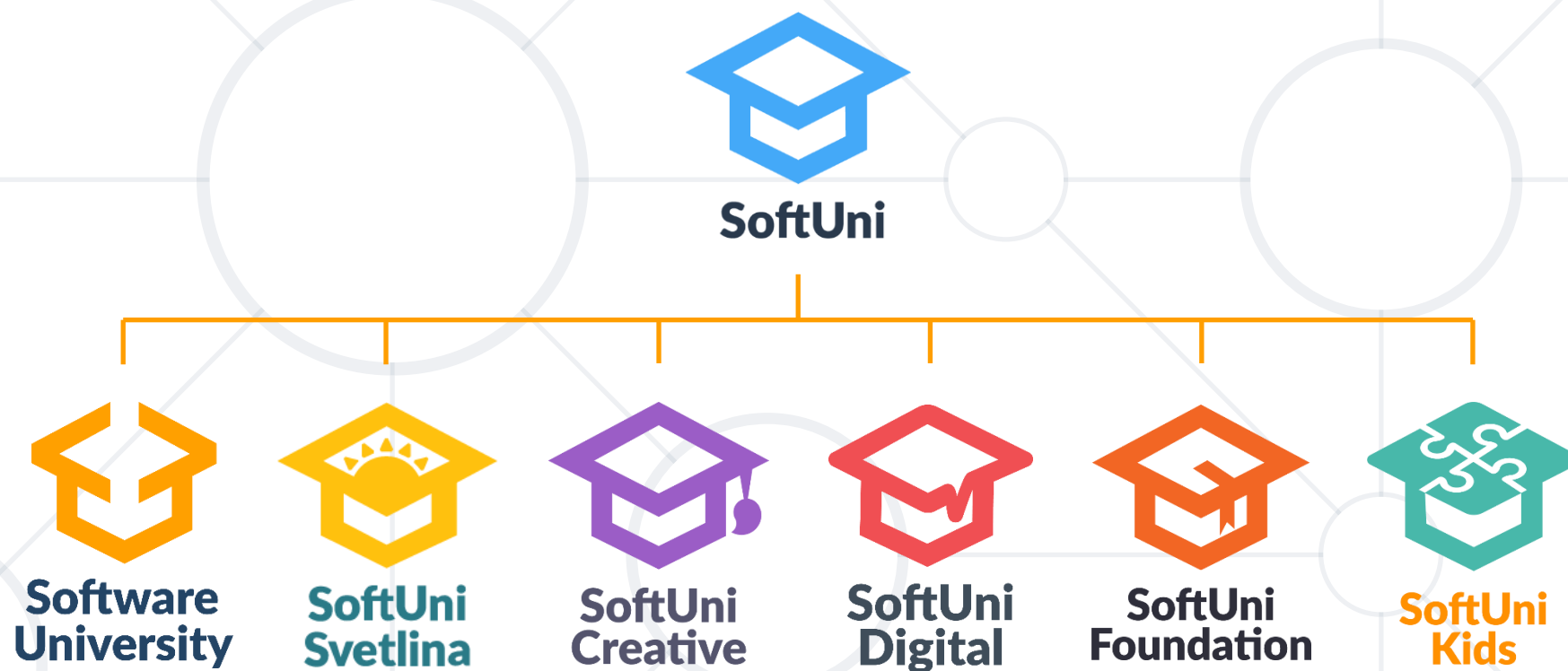
- Use the given resources
- Don't forget to follow the best practices



- What is ITCSS
- ITCSS Layers
  - Settings
  - Tools
  - Generic
  - Elements
  - Components
  - Objects
  - Utilities



# Questions?



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