# Part 1. UI Design Principles (Slide PRU212)

1. **Simplicity (clarity)**: Simplify the interface for ease of use and understanding. Remove unnecessary elements and focus on basic, intuitive design.
2. **Consistency**: Maintain consistency in the display and behavior of interface elements. This aids users in predicting and using the interface easily.
3. **Visibility**: Ensure essential elements are displayed prominently and are easy to find. This helps users understand how to use and interact with the interface.
4. **Hierarchy**: Arrange elements by importance and their relationships. Create a structured layout that is easy to comprehend.
5. **Feedback**: Provide immediate feedback when users interact with the interface. This helps them understand their actions and feel in control.
6. **Accessibility**: Design the interface so that all users, including those with disabilities, can use it easily and conveniently.
7. **Flexibility**: Allow users to customize the interface to create a personalized experience.

*Requirements for interface design:*

1. **Immediate Response**: When users interact with an interface, immediate feedback confirms that their action has been registered. For instance, a button press changing color to show it has been clicked.
2. **Error Handling**: Clear feedback is essential when users make mistakes. Providing helpful error messages or visual cues guides them on correcting the error.
3. **Progress Indication**: In interfaces with time-consuming actions (like downloads or form submissions), progress bars or spinners give users a sense of how long they need to wait.
4. **Confirmation**: When users perform significant actions (such as making a purchase or deleting an item), a confirmation message helps prevent accidental actions.
5. **User Testing**: Gathering feedback directly from users through surveys, interviews, or testing sessions is crucial. This helps designers understand user needs and preferences better.
6. User feedback is not only about visual or auditory responses from the interface; it's also about the broader process of understanding and accommodating user preferences, expectations, and experiences throughout the design journey. It's an iterative process that often leads to refining and improving UI design.

# Part 2. Built-in Particle System - Visual Effect Graph

<https://docs.unity3d.com/Manual/ParticleSystems.html>

# Part 3. Analyze Techniques for Game Design

+ Design a Unity Game (Group Project)

- Mockup Design for a Scene → (Using Figma or other tools to design Mockup) Screen Flow for Game Project

Menu Scene

Settings Scene

Level 1, … N Scences

- Techniques

- Movement (trái, phải, lên, xuống) - Boundaries

- Collision - Trigger

- Scene Design - Layer - sắp xếp thành phần - Tag, Sprite

- Animation/Animator (Animation Clip, Animation Controller(Animator component)

- Camera - đứng yên, di chuyển theo nhân vật

- (\*) Hiệu ứng – Effects + Light

- (\*) UI/UI Toolkit (Hiển thị Score, Hiển thị các Life, Menu, Nhập dữ liệu, Button)

Xử lý sự kiện (Event System)

- (\*) Audio (AudioListener, AudioSource) + Video

- C# Script

-

+ Kiểm tra tiến độ thực hiện Group Project