

Buttons & Events

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Vocabulary

User Interface (UI) - The "User Interface" or UI of an app refers to how a person (user) interacts with the computer or app.

UI Elements or objects, like buttons, images, text boxes, pull down menus, screens and so on.

UI Events or controls, like click, scroll, move mouse, type keyboard key, etc.

Event-driven program - a program designed to run blocks of code or functions in response to specified events (e.g. a mouse click)

Event handling - an overarching term for the coding tasks involved in making your app respond to events by triggering functions.

Event listener - a command (`onEvent` in App Lab) that can be set up to trigger a function when a particular type of event occurs on a particular UI element.

Callback function - a function specified as part of an event listener; it is written by the programmer but *called* by the system as the result of an event trigger.

What events do familiar apps use to be interactive?

Take a look at your favorite app on your phone

Look at the main UI

Make a quick list of everything on that screen that you can interact with as a user

Write down one action-and-reaction of the app: one thing you do, and how the app responds.

Event Examples

- Clicking a button
- Swiping a screen
- Dragging your finger
- Tilting a phone
- Pressing a key, etc.

Modern apps are interactive because they can respond to these and other forms of user input (i.e., human-generated events).

Event Driven Programming

We may not understand all the technical details yet, but it seems clear that most applications we use respond to events of some kind.

Whether we're clicking a button or pressing a key, the computer is sensing events that we generate in order to determine how the application should run.

Today, we're going to start exploring how event-driven programming makes this possible.

Design Mode