3.2.3 Identifying which type of API to use

Although APIs can come in many forms, for our purposes we'll focus on web APIs. Web APIs work with a web server or browser, and include services like web notifications and web storage. Web APIs send and receive requests from different devices, like cellphones and laptops, to servers that then process the requests and return the desired outputs. Any applications that need to connect to each other through the Internet use Web APIs. Web APIs are accessed using HTTP protocols, which you will learn more about later in the week.

Types of web APIs

There are four main types of web APIs—select an icon to find out more.

API security gone wrong

Be aware that API security is important too. When APIs are compromised, there can be very real and practical consequences. API issues can make connected devices, like smart doorbells or thermostats, vulnerable to attacks from hackers.

- **Smart doorbell disaster: Many brands vulnerable to attack (https://threatpost.com/smart-doorbell-vulnerable-to-attack/162527/)** (Spring 2020).

- **Criminals hacked a fish tank to steal data from a casino (https://www.forbes.com/sites/leemathews/2017/07/27/criminals-hacked-a-fish-tank-to-steal-data-from-a-casino/?sh=733e260032b9)** (Mathews 2017).

Knowledge check:

Complete the following questions:

Based on the following scenario, which type of API would you recommend?

Scenario: A new data application wants to connect with MeetUp.com and other hobby-based platforms to connect potential romantic partners based on interest and location. Which type of API would you recommend?

- ◯ Open
- ◯ Internal
- ◯ Partner
- ◯ Composite

Check

Based on the following scenario, which type of API would you recommend?

Scenario: An online big-box retailer wants to use APIs to connect with their suppliers to ensure that they have up-to-the-minute information about the status of their orders. Which type of API would you recommend?

- ◯ Open
- ◯ Internal
- ◯ Partner
- ◯ Composite

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