

### Quiz 12: Widgets, Elements, build()

1. What's the job of the widget tree?
  - a. Manage state of stateful widgets.
  - b. Render content onto the screen.
  - c. **Provide configuration for element and render tree.**
2. What's the job of the element tree?
  - a. Render content onto the screen.
  - b. **Connect widget and render tree, manage state, update render tree when widget tree changes.**
  - c. Configure and style content on the screen.
3. What is correct about build()?
  - a. **build() runs very often and re-builds the widget tree (or parts of it).**
  - b. build() runs very often and rebuilds the entire UI.
  - c. Flutter checks if it needs to execute build() before running it.
4. What's NOT a viable option for reducing the amount of widgets (including built-in widgets) affected by build()?
  - a. Splitting the app into multiple (small) custom widgets.
  - b. Using const constructors and widgets.
  - c. **Using only a single/ a few widgets in the whole app.**

### Quiz 13: Keys, Lists, Stateful Widgets

1. Why do you (rarely) need keys?
  - a. **To help Flutter link elements (element tree) and widgets (widget tree) correctly.**
  - b. To help Flutter link elements (element tree) and render objects (render tree) correctly.
  - c. To help Flutter manage list items - required in all lists you use in your app.
2. How does Flutter match widgets and elements if you DON'T use keys.
  - a. There is no matching without keys.
  - b. By the content of the widget.
  - c. **By the type of the widget.**
3. Why do keys only matter if you're working with stateful widgets in a list?
  - a. **Because state objects are attached to the element, not the widget.**
  - b. Because state objects are harder to match for Flutter.
  - c. Because state objects are replaced regularly.