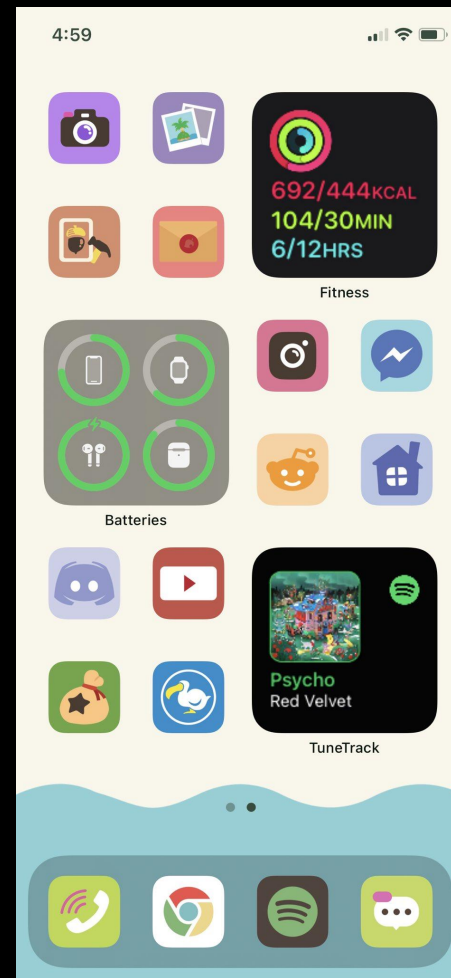
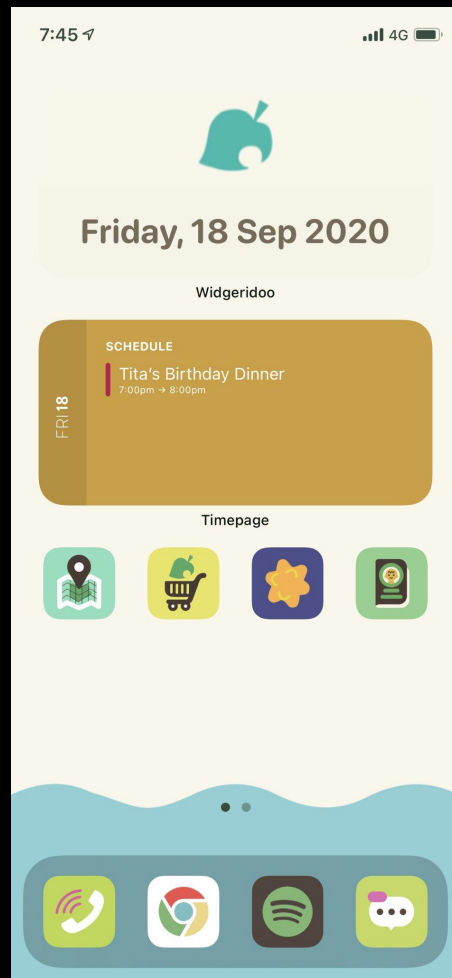
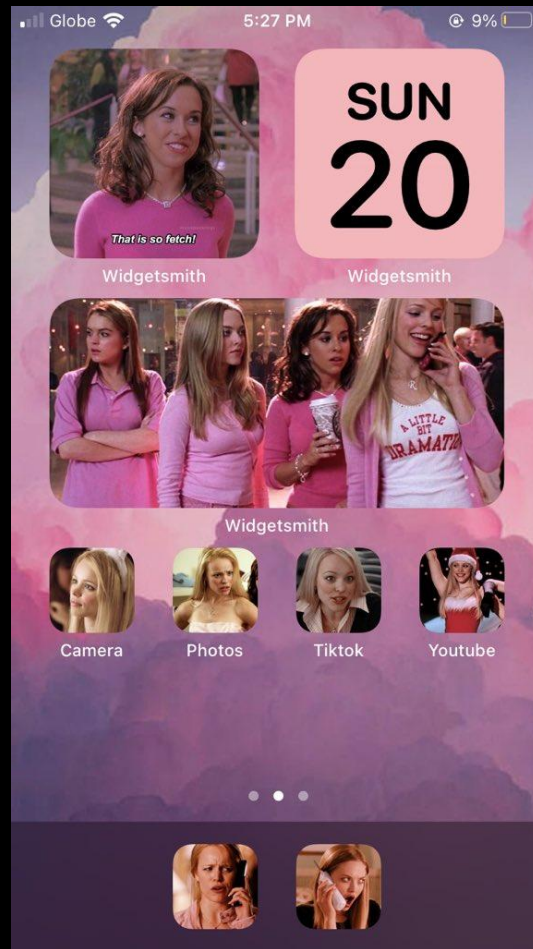
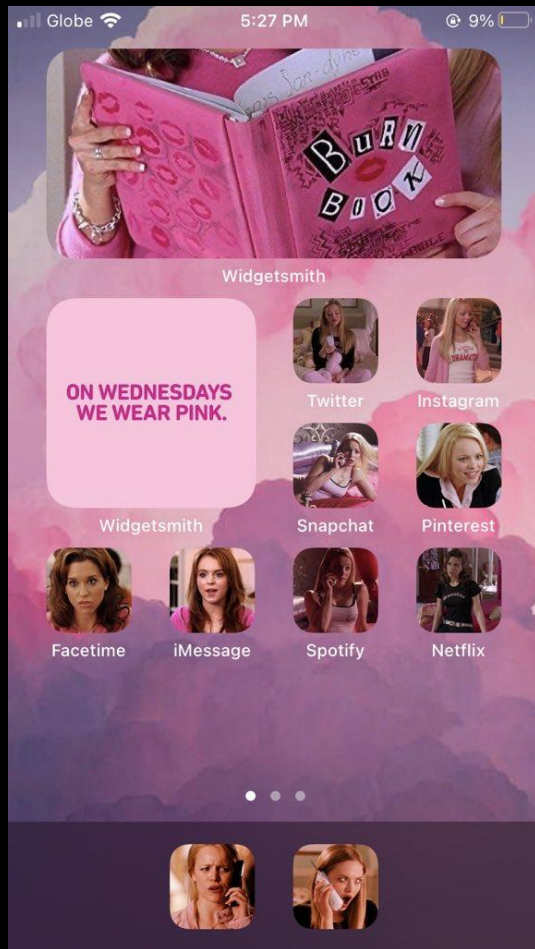


# How to Widget

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iOS Developer, Capital One









Widgets

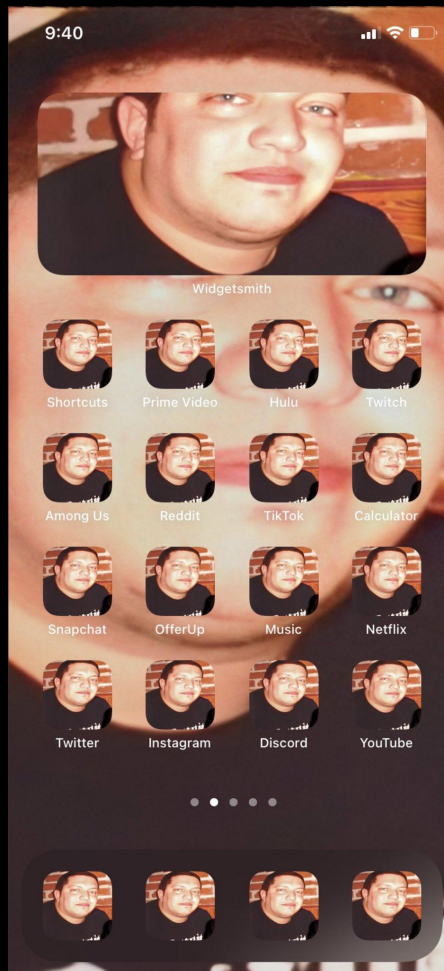


Widgets smith



Widgets





# What is a Widget?

- A SwiftUI view that updates over time
- An extension built on your main app
- A relevant, glanceable experience
- Not a mini-app
- Widgets can support three sizes





# Widgets can appear on...

- iPhone home screen and Today View
- iPad Today View
- macOS Big Sur notification center





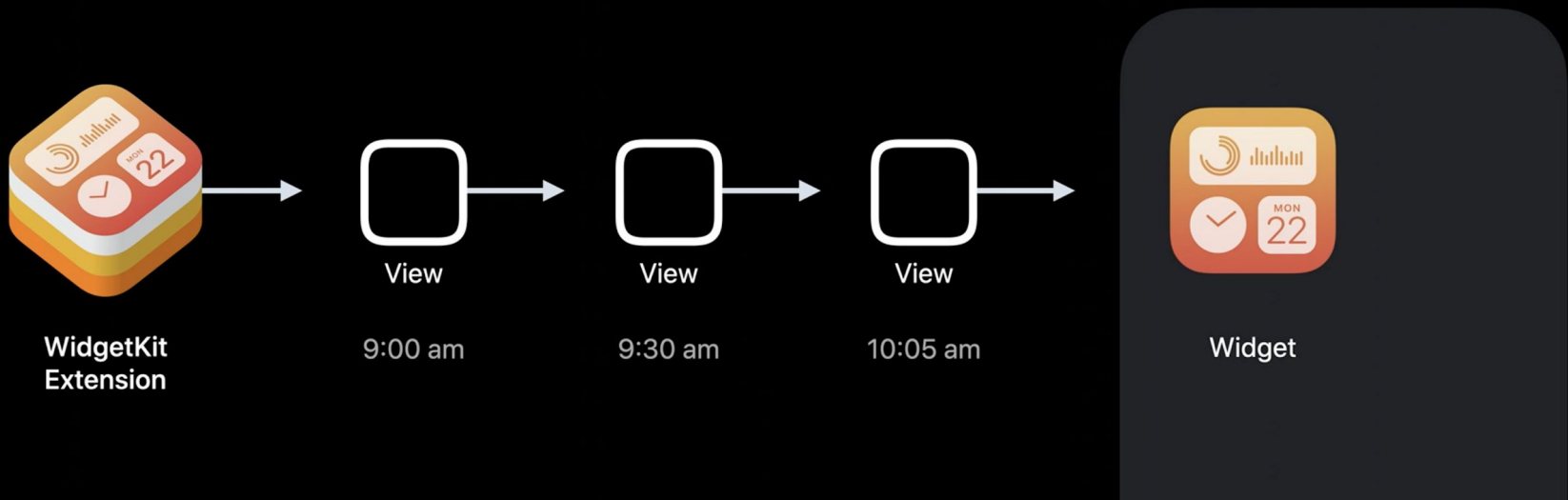
# Widget Configuration

- The back of a widget can display a configuration UI
- The UI is generated by the system, the parameters are defined by you
- Widgets don't have to be configurable



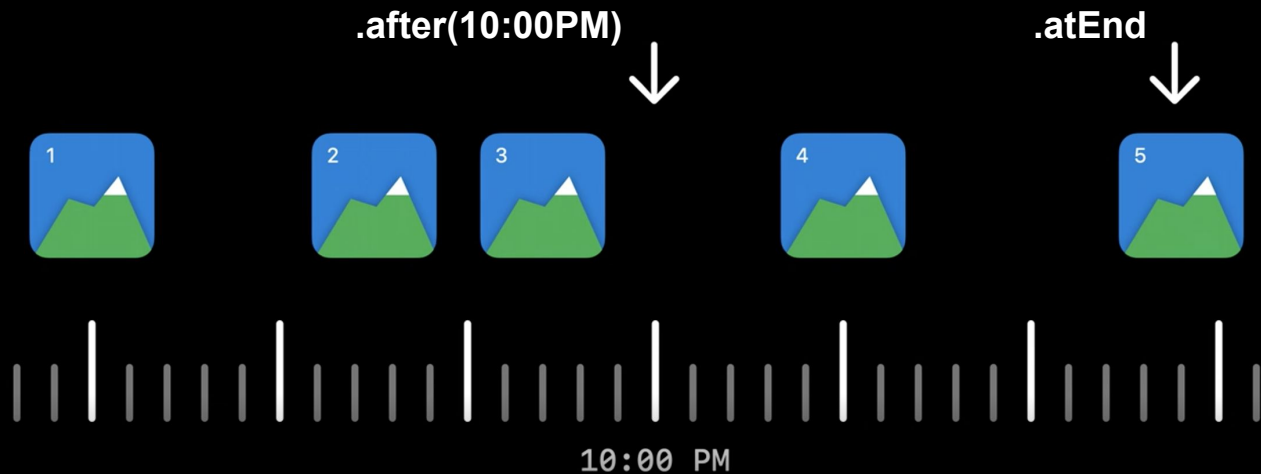
# Widget Timelines

- A timeline is a series of views and when to display them
- Entries are serialized to disk and just-in-time rendered by the Home Screen
- The timeline Reload Policy defines when to request a new timeline
- You can manually reload the timeline from your main app



# Timeline Reload Policies

- There are 3 different Timeline Reload Policies
- `.atEnd` requests a new timeline after the last timeline entry
- `.after(Date)` requests a new timeline after the provided Date
- `.never` will not request a new timeline



# Timeline Entry Relevance

- Timeline entries can contain relevance score and duration
- Widget Smart Stacks will try to display our widget when it is highly relevant

8:04



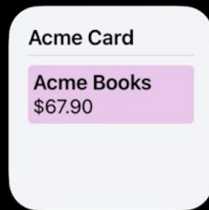
```
score = 0
duration = 0
```

11:46



```
score = 0.1
duration = 0
```

3:12



```
score = 1
duration = 0
```

5:20



```
score = 0.1
duration = 0
```

6:32



```
score = 0.1
duration = 0
```

# Widget Snapshots

- Used when the system needs to quickly display an entry
- Often the same view as the first timeline entry



# Widget Placeholders

- The default content for your widget
- Don't display actual user data
- Typically only retrieved when the device environment changes



# Thank you!

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- <https://twitter.com/okpng/status/1306850786085761025> - animal crossing home screen
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