

MOBILE DEVELOPMENT

LESSON 12 SWITCH, ENUMS, PERSISTENCE INTRO

Tedi Konda

VP, Engineering and Technology, RepEquity

GETTING STARTED

LEARNING OBJECTIVES

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LEARNING OBJECTIVES

- Switch statements
- Enumerated types
- Intro to persistence
- Work on mid class projects

GETTING STARTED

SWITCH STATEMENT

CONTROL FLOW

SWITCH STATEMENT

- **switch** statements are like **if-else** statements, but usually depend on one primary condition (known as a **control expression**) that is evaluated over a large range of possibilities.
- Other notable keywords:
 - **case**
 - **break**
 - **default**
 - **where**

CONTROL FLOW

CASE

- **case**

- Defines a pattern/result for the control expression. If it's true, the code after **case** is evaluated.

CONTROL FLOW

DEFAULT

- default

- Code after this keyword is hit if all other patterns/results defined by the **case** keyword are not satisfied.

CONTROL FLOW

WHERE

- where

- Code after this keyword is evaluated if all other patterns/results defined by the **case** keyword are not satisfied.

GETTING STARTED

ENUMERATIONS

ENUMERATION TYPES

ENUM

- An enumeration, or `enum`, is a way to group related values together.
- To Playgrounds!

GETTING STARTED

INTRODUCTION TO PERSISTENCE

FILES AND PERSISTENCE

WHAT IS PERSISTENCE AND WHY DO IT?

- We persist data so that we can access it quickly between sessions.
- Examples
 - App high scores
 - App settings
 - User credentials
 - Etc.

FILES AND PERSISTENCE

HOW DO YOU PERSIST? (PT. 1)

- There are many ways to persist data
- Choosing how to persist depends on several things
 - What kind of data am I writing?
 - What kind of data am I reading?
 - Am I storing relations between things?
 - For how long do I need store the data?

FILES AND PERSISTENCE

HOW DO YOU PERSIST? (PT. 2)

- There are several built-in options for persisting data in iOS
 - This session:
 - User defaults
 - Property lists
 - Flat files
 - Next session:
 - Core Data
 - SQLite

GETTING STARTED

USER DEFAULTS

FILES AND PERSISTENCE

USER DEFAULTS

- A key/value store for storing small, independent bits of data
- What else have we used that utilizes the the key/value paradigm?

FILES AND PERSISTENCE

USER DEFAULTS

- What kind of data am I writing?
 - Small bits of data and an associated key, stored one at a time
 - e.g. A string, a number, a boolean, a dictionary, an array, a date, etc.
- What kind of data am I reading?
 - Same as above, retrieved one at a time
- Am I storing relations between things?
 - No
- How persistent does my data need to be?
 - Persistent across app sessions, but is deleted when the app is deleted

FILES AND PERSISTENCE

USER DEFAULTS

- Good for:
 - App settings
 - App state
- Not good for:
 - Large data sets
 - Complex relations
 - Sensitive data
 - Caches

FILES AND PERSISTENCE

NSUSERDEFAULTS

▸ To Playgrounds!

FILES AND PERSISTENCE

NSUSERDEFAULTS (ADVANCED)

- If you want to store a custom class, you'll need to use the `NSKeyedArchiver` and `NSKeyedUnarchiver` class.
- The `NSKeyedArchiver` class allows you to convert your class (and its properties) into `NSData`. You then save `NSData` into your project.
- The `NSKeyedUnarchiver` class allows you to build your custom class with values saved as `NSData` inside of `NSUserDefaults`.
- More info in `NSUserDefaults` section of <http://nshipster.com/nscoding/>