TraVerse Automotive English Program

iOS App & Web App

Introduction

OSU Automotive English Program is remolding English training for the digital learning landscape to bring you just-in-time language solutions.

Facts

- 98% of U.S. adults between 18-29 have a smartphone vs 78% owning a computer[1]
- The average time a person spent daily on smartphones is 2 times more than computer[2]

Problems

- There is a need to provide an alternative and more convenient method to learn English, especially though speaking practice
- The ease of learning without a proper desk or workstation and available on the go

References

1. www.pewinternet.org
2. www.smartinsights.com

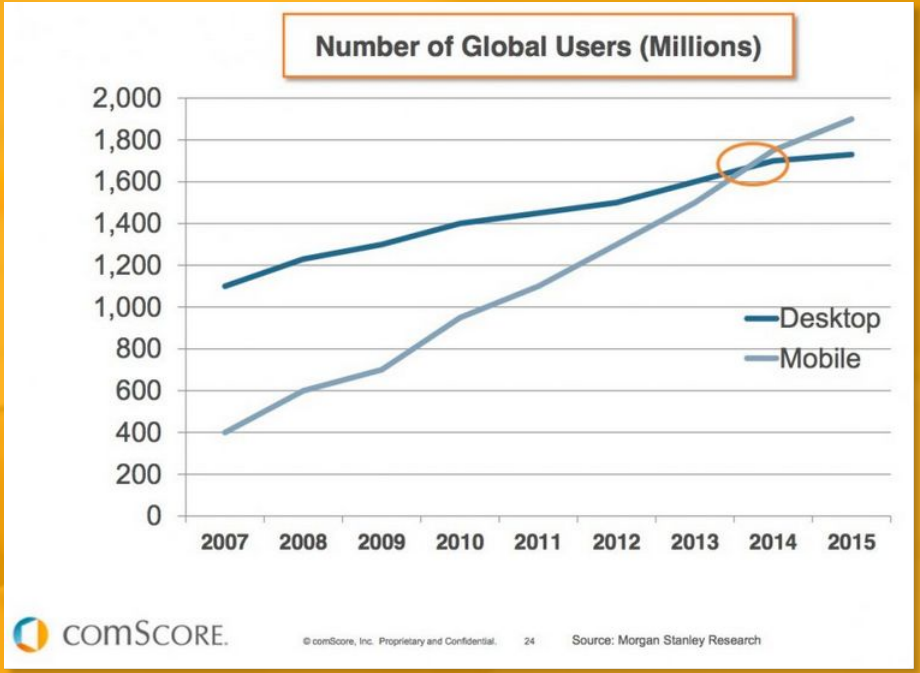


Figure 1: Desktop vs Mobile User Graph

References

1. www.pewinternet.org

5.6 hours

A User Spent On Digital Media A Day

2.8 hours

Are Spent On Mobile

51%

Of Total Time Spent Are On Mobile

More Than Half !

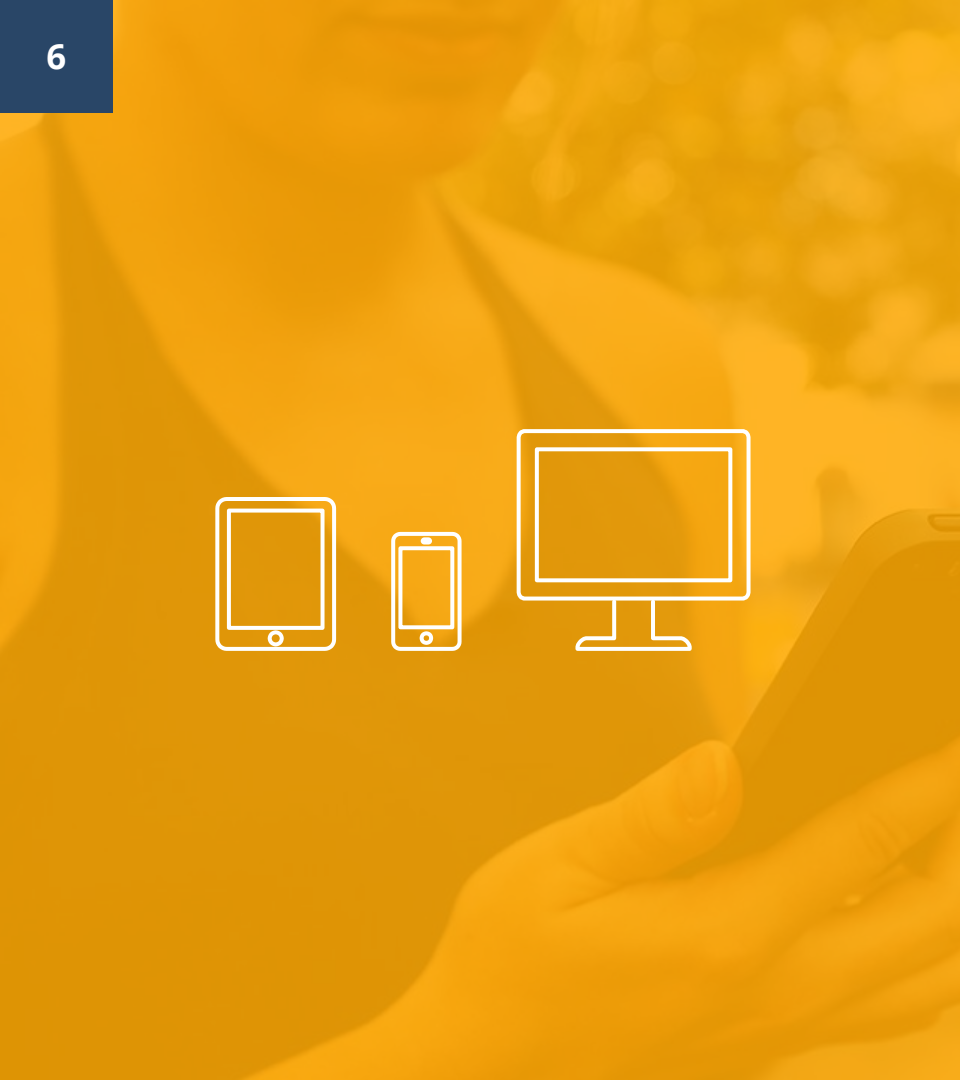
References

1. www.smartinsights.com

“I feel that I can communicate with (coworkers) deeper than before with an improvement of my English skills. This feeling motivates me.”

– Participant survey response –

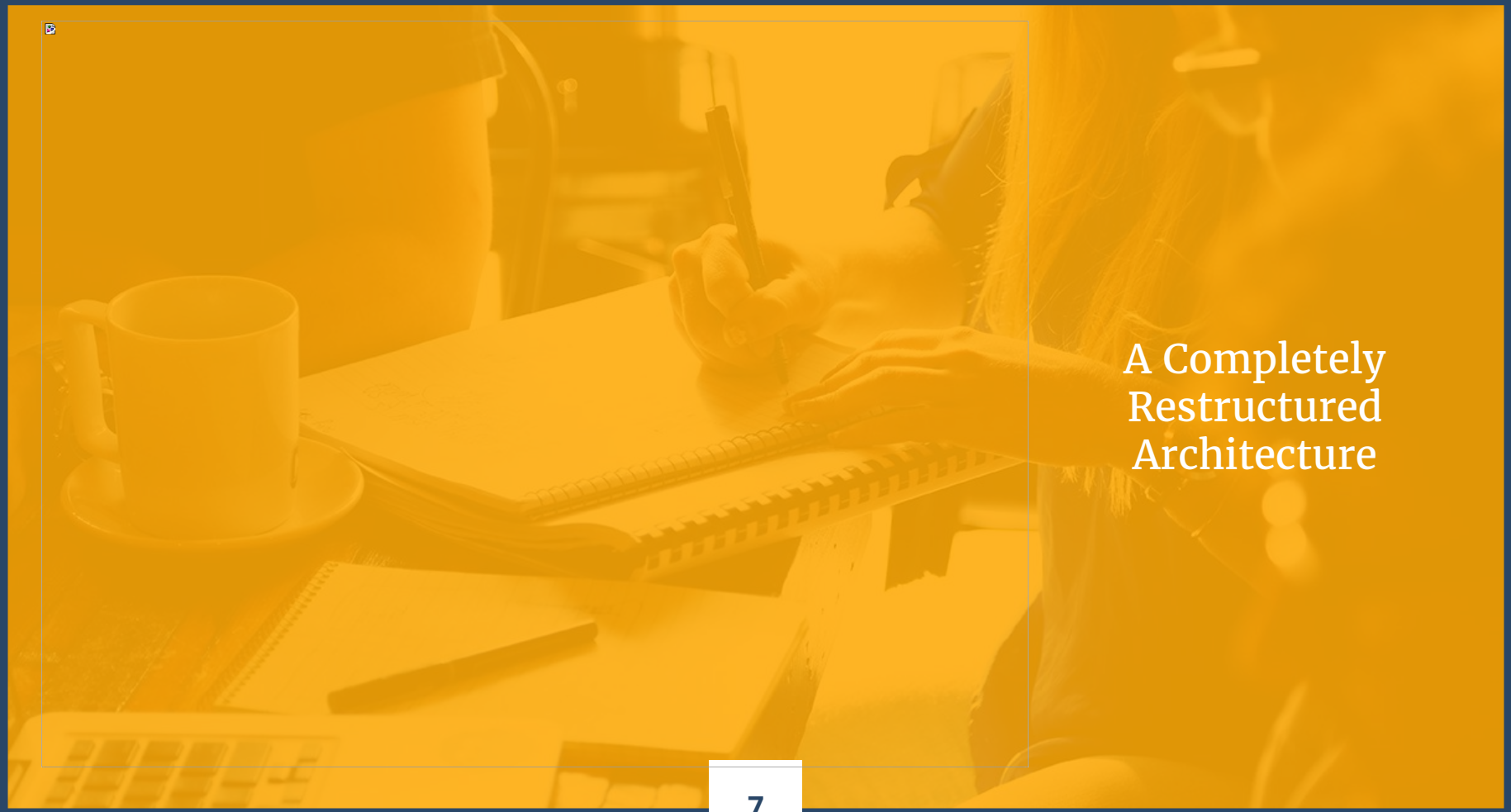
Source : https://traverse.ehe.osu.edu



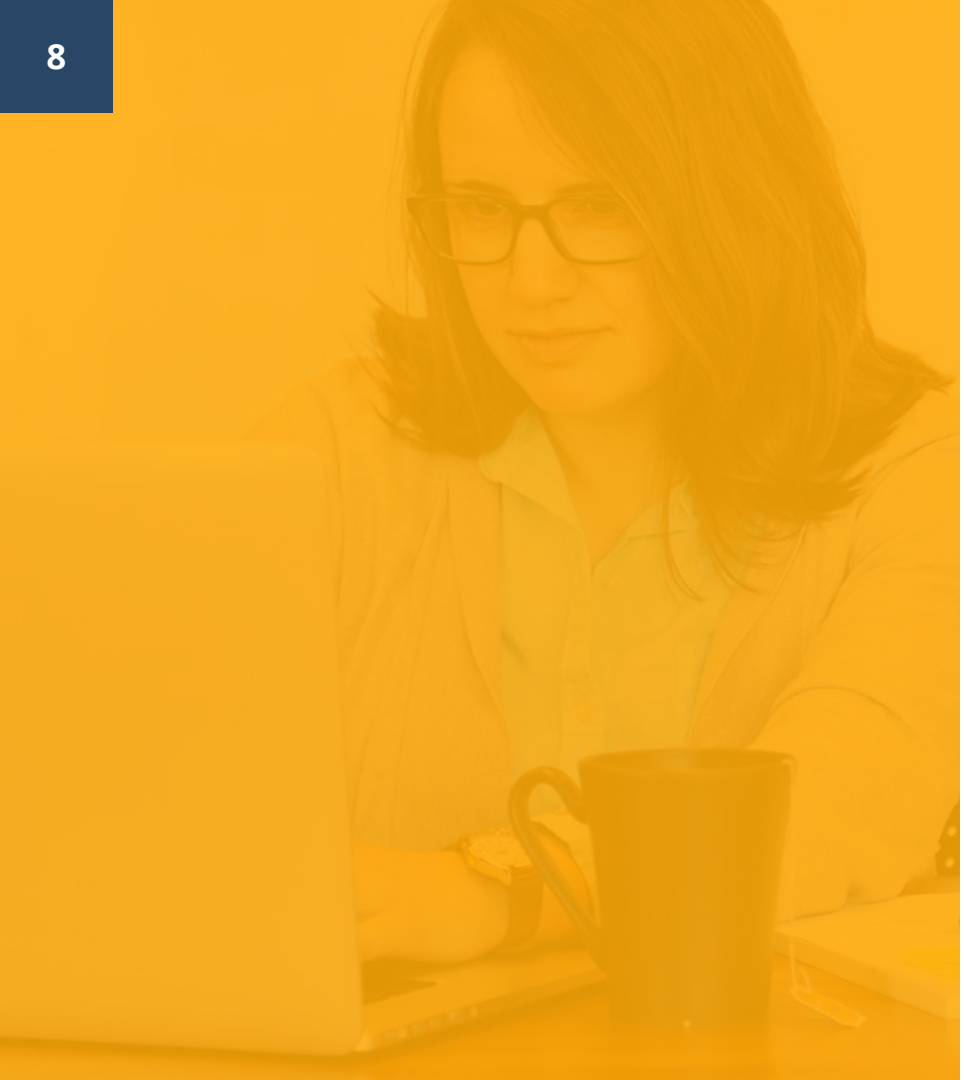
A new training platform

- Students
  - iOS App
- Instructors
  - Web Application

Providing a better end to end solution for students and instructors to interact between each other



A Completely Restructured Architecture



iOS Application

Automotive English Program Students

Where we took off

We took over the project that has been going on for the pass semester which got the idea of what the app should look like and function and came up with a prototype

A completely new restructured architecture using AWS

User Authentication & Access Management

Cognito

Custom user authentication via custom authentication process while still synchronizing user data and access AWS resources

IAM

To manage users identity and access management to securely control access to AWS service and resources for each users

AWS services implemented

S3

The app use S3 as the main object storage that use to retrieve and store data with high durability

+

IAM

Granting users access data to their unique folder and not the whole bucket

Mobile Analytic

Collect precious data, measuring app usage, key trends, user retention and much more

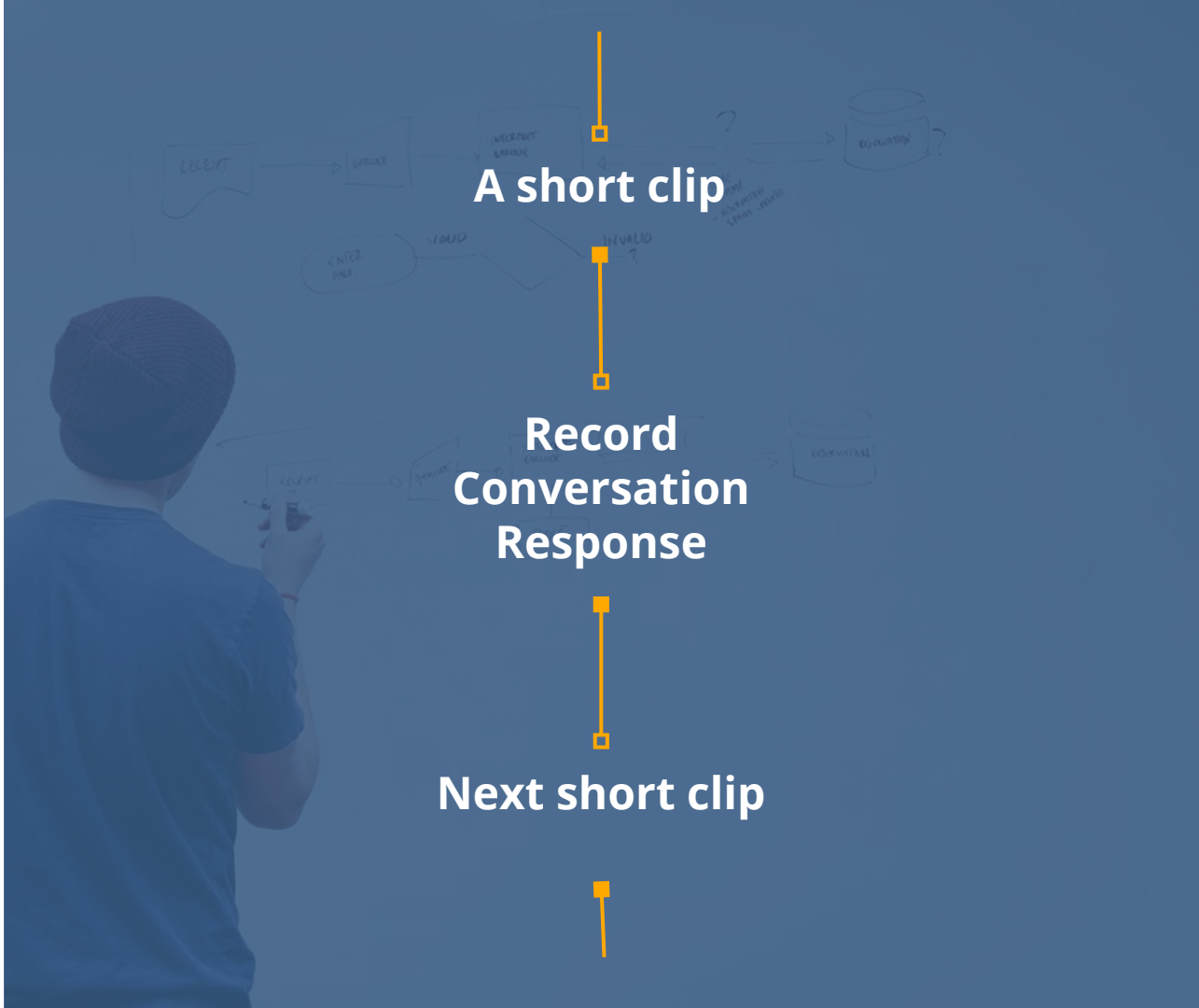
Which data collected could be use to improve the program and app

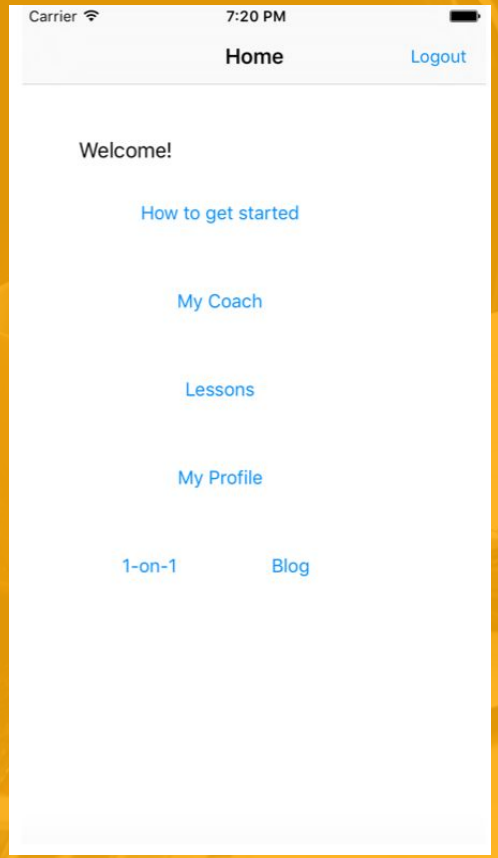
UI Design

Interface to incorporate a uniform table view

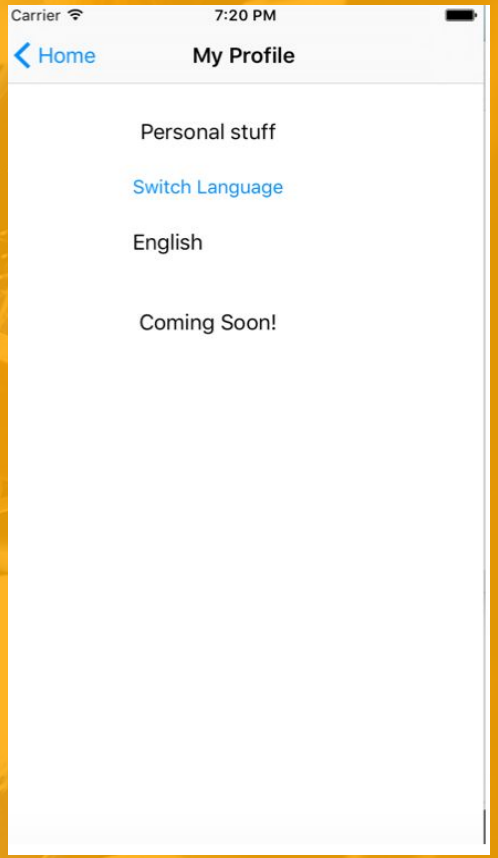
Scarlet & Grey Theme			
	Realistic Button Designs		
		Related Icons	
			Customiza-ble Theme

The app makes conversation practice easy





Previous Prototype Design

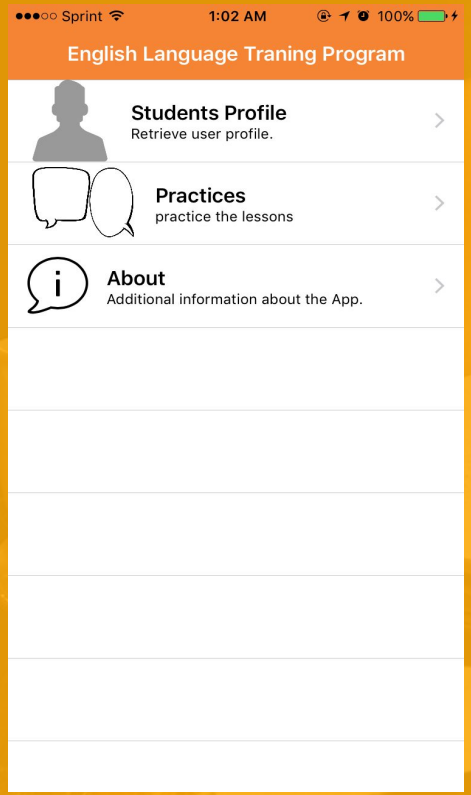


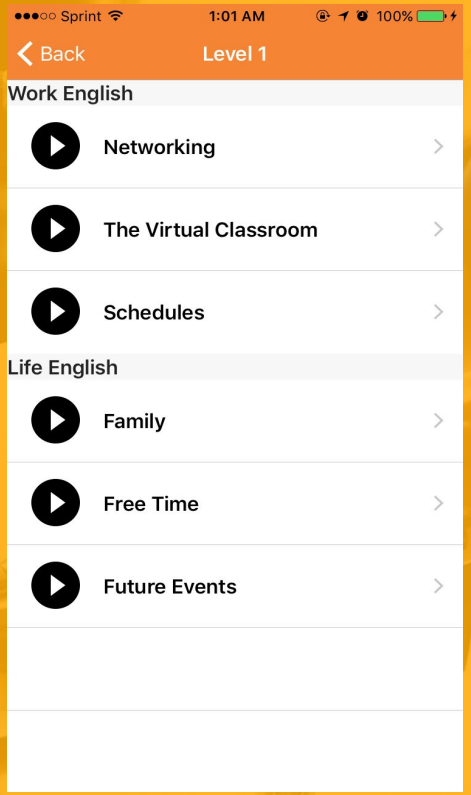
Introducing the whole new UI of English Training Program

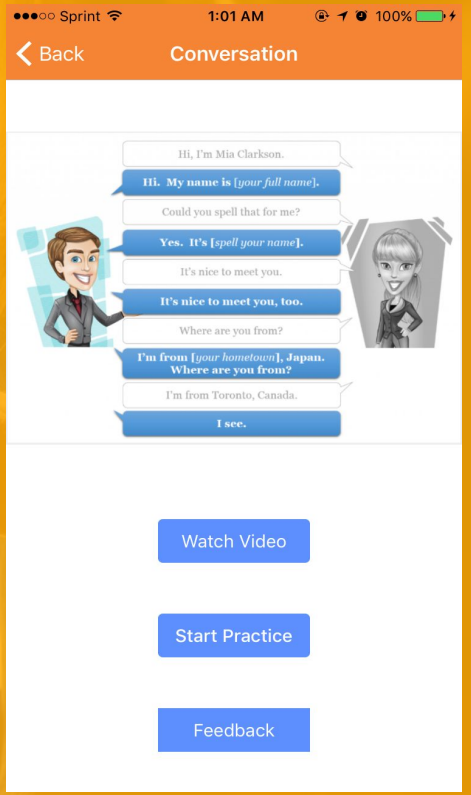
- Simple
- Easy
- Beautiful

Launch Page

Login Page



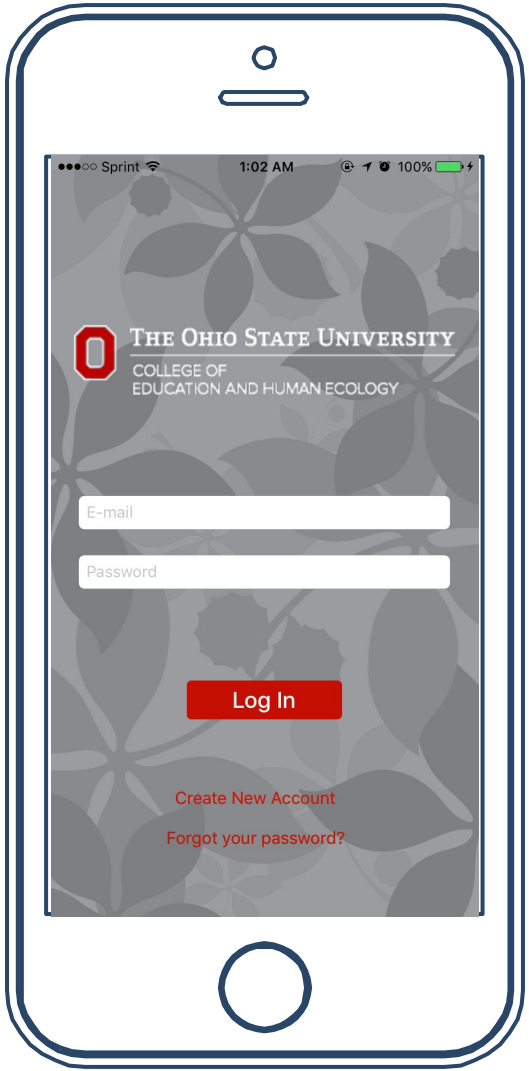


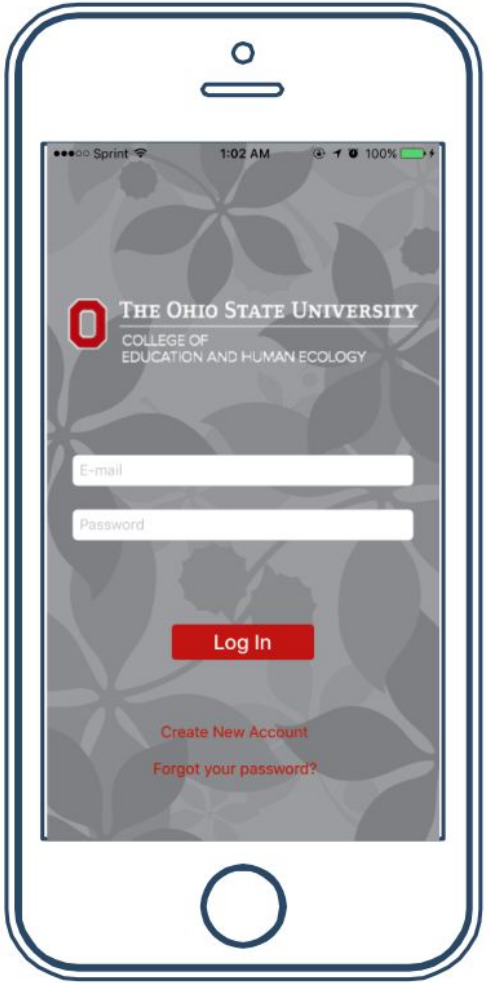


Uniform Design Throughout The App

Works On

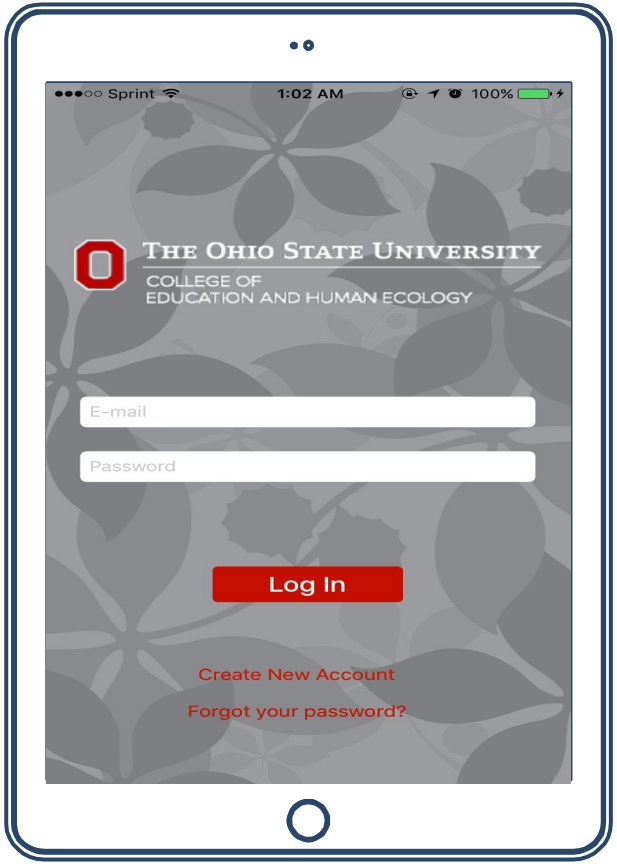
- iPhone 7
- iPhone 6
- iPhone 5
- iPhone 4

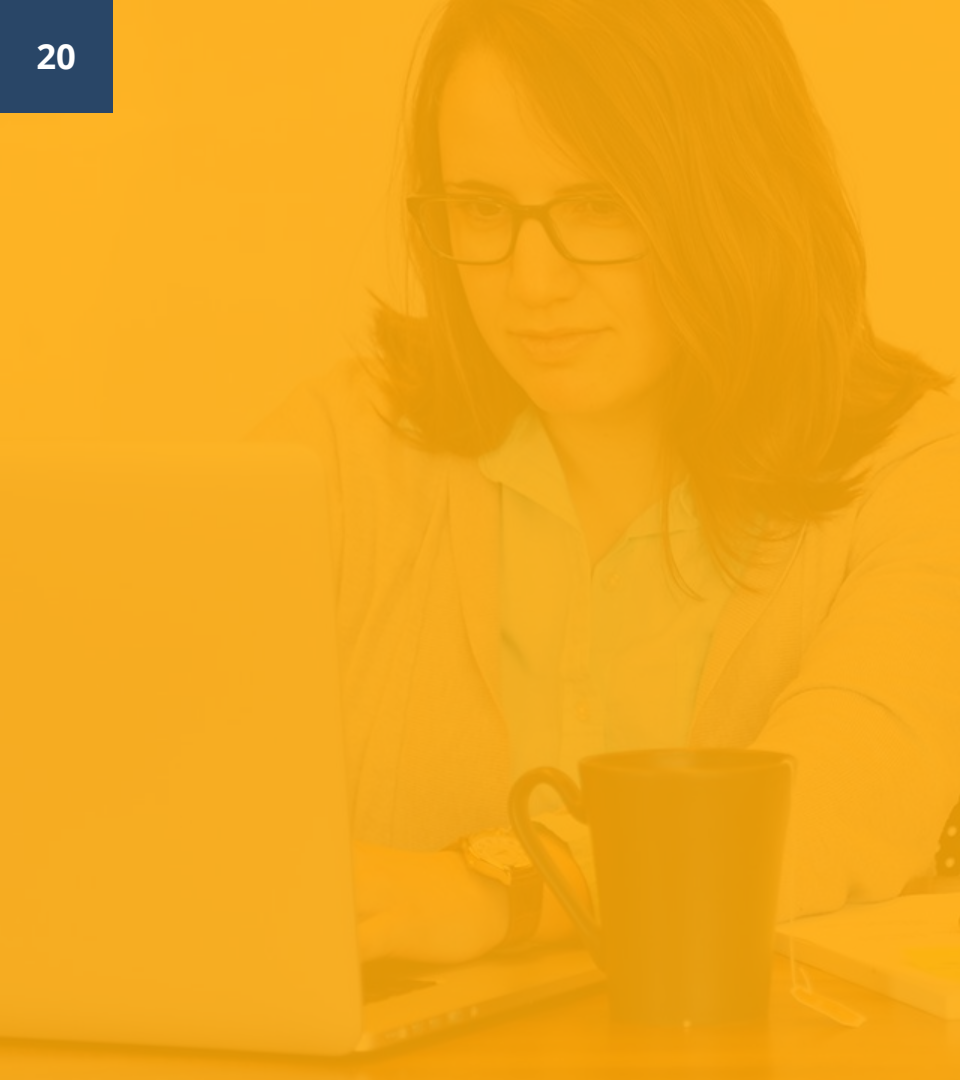




Tablet

Also works on Tablets!





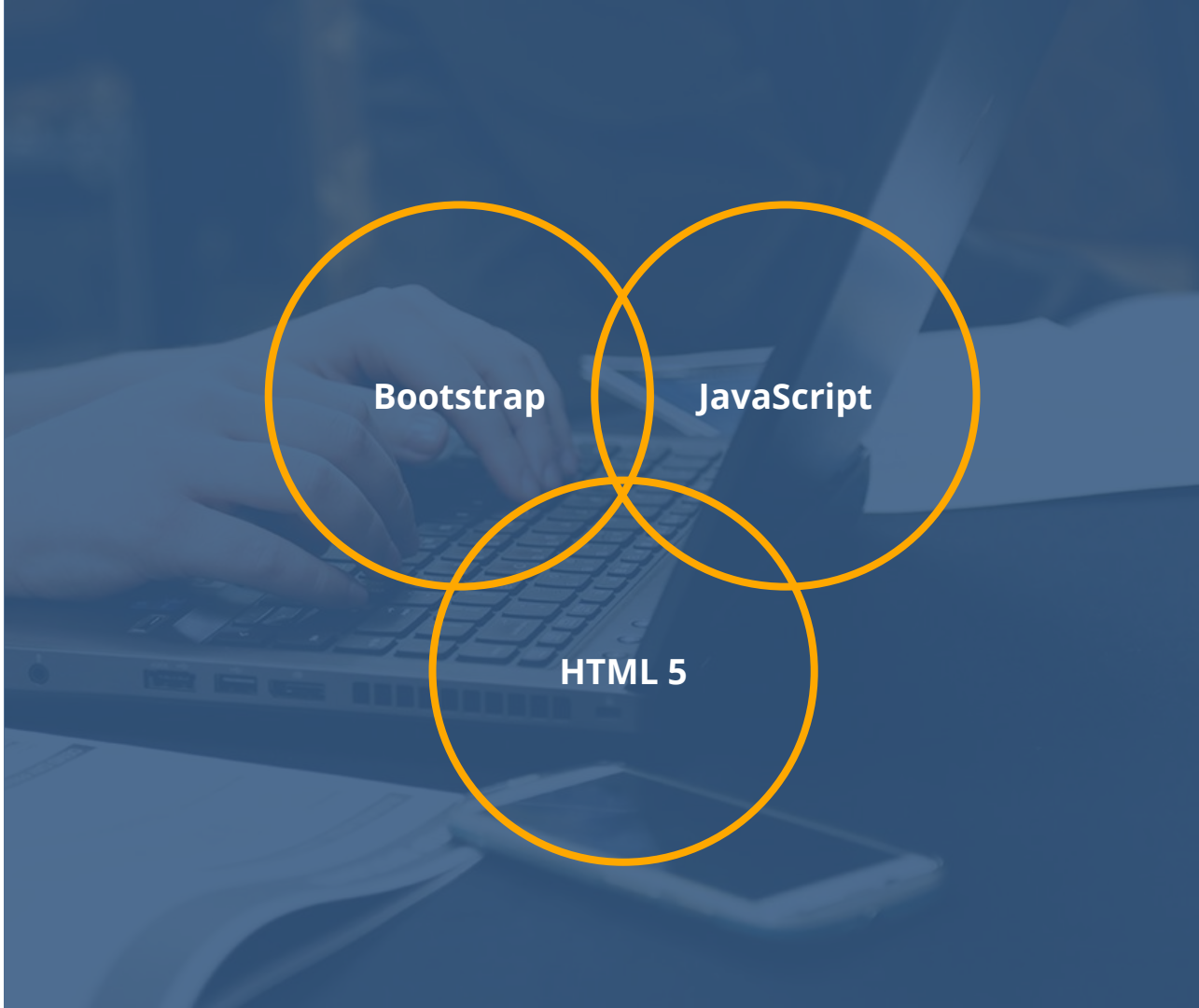
Serverless Website

Automotive English Program Instructors

Why Serverless?

- ★ Infinite scalability
- ★ High availability
- ★ Cost efficiency

Frontend



Backend

Simple Storage Service(S3)

The HTML / CSS / JavaScript code that runs at the client-side are hosted in S3 bucket.

Lambda

Lambda executes code to call SNS service when triggered by S3 object update events.

Simple Notification Service

Notify indicated user who is in the list of SNS once update event happened in S3 bucket.

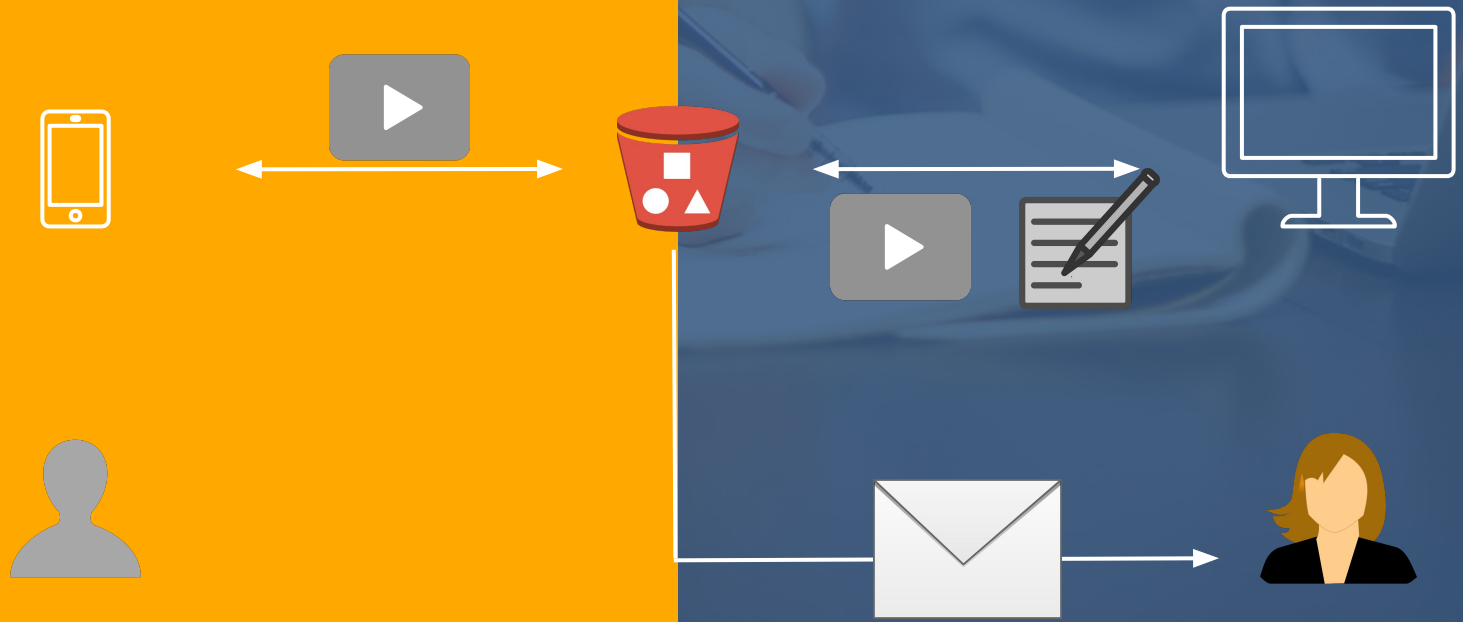
CloudFront

CloudFront is used to serve distribution work for both the media player and the media files:

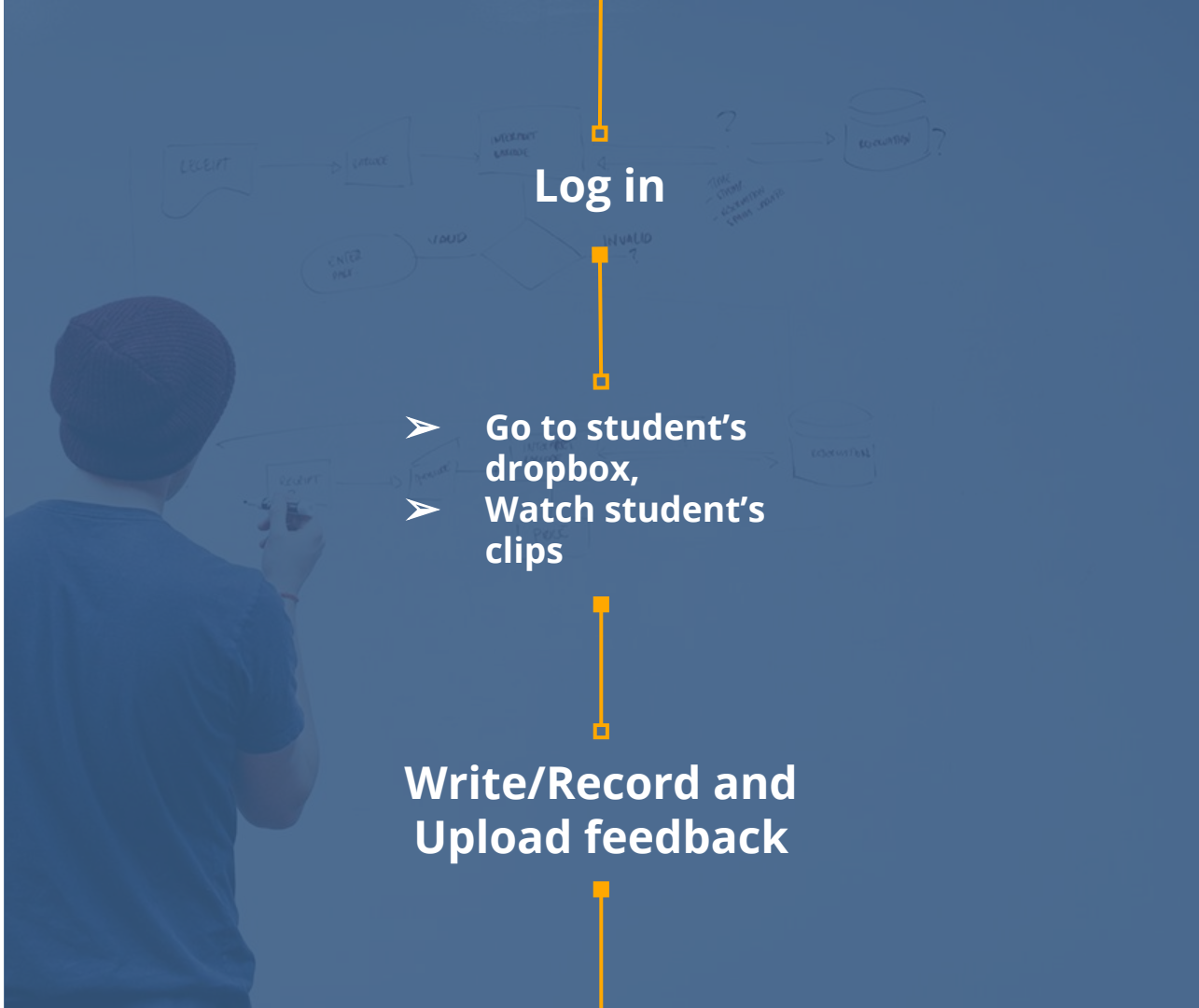
Web distribution for the media player

RTMP distribution for the media files.

Interact with IOS app



Leave feedback



Log in

- Go to student's dropbox,
- Watch student's clips

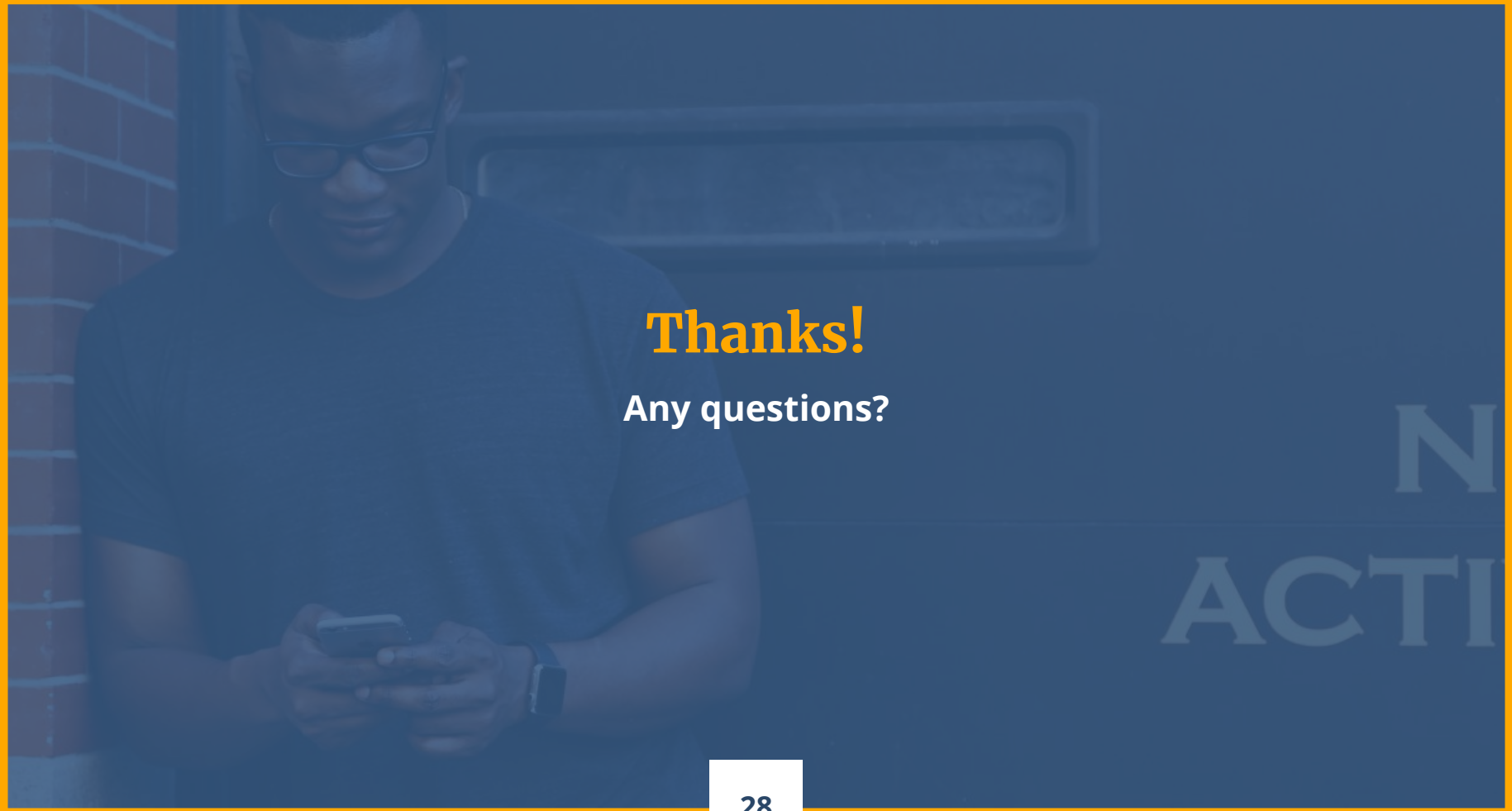
Write/Record and Upload feedback

Demo!

Credits

Special thanks to all the people who helped us on this project!

- Sponsor: Jaclyn
- Instructor: Murthy



Thanks!

Any questions?