Application for Sharing Interesting Zoo & Aquarium Videos to Social Media
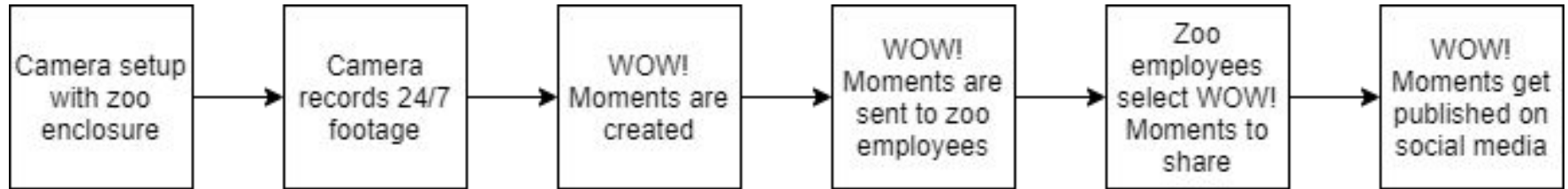
Members: Austin Nebel, Daniel Barnes, Sam Shifflet, Sebastian Vang, Tom Powell, Aryan Joshi, Noah Syens

Faculty Advisor: Dr. Alexander Stoytchev

Introduction

Overview of True360

- What is True360
  - Startup
  - WOW! Moments
- Lifecycle of the product:

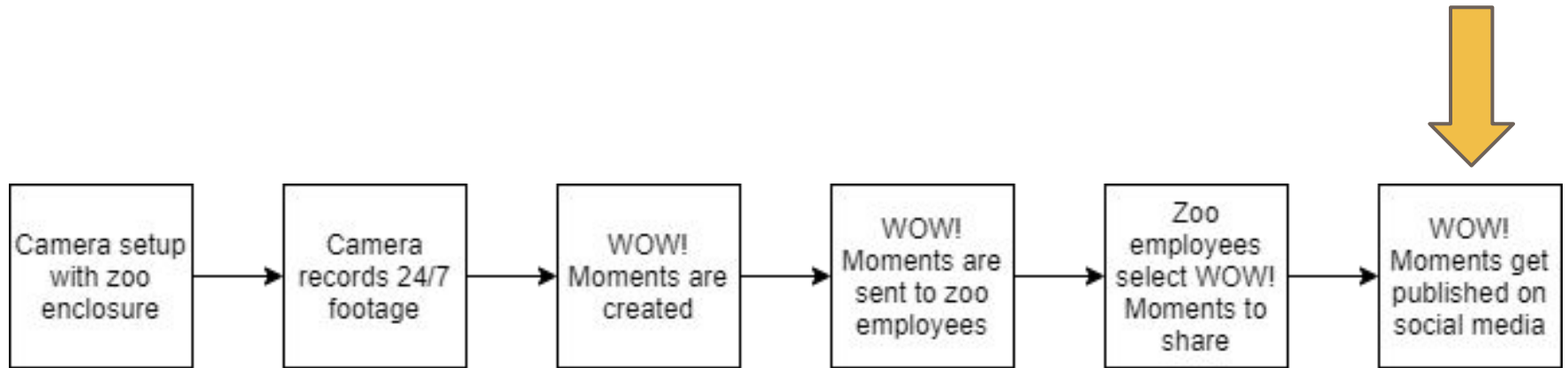| Camera setup with zoo enclosure | → | Camera records 24/7 footage | → | WOW! Moments are created | → | WOW! Moments are sent to zoo employees | → | Zoo employees select WOW! Moments to share | → | WOW! Moments get published on social media |

What is a WOW! Moment??

Where we fit in

- Publishing WOW! Moments

Functional Requirements

- Create a cross-platform application that allows for publishing of videos to selected platforms
- Create a centralized web server and database that contains publication data
- The app must contain the following features:
  - Bug Report / Contact Forms
  - User Documentation
  - Format videos and metadata based on platform

Non-Functional Requirements

- The product shall appear easy and simple to use
- The product shall perform swiftly for the user
- The product shall be usable by users with limited computer experience
- The product shall comply with legal regulations
- The product shall be built to last

Design

Architecture Diagram
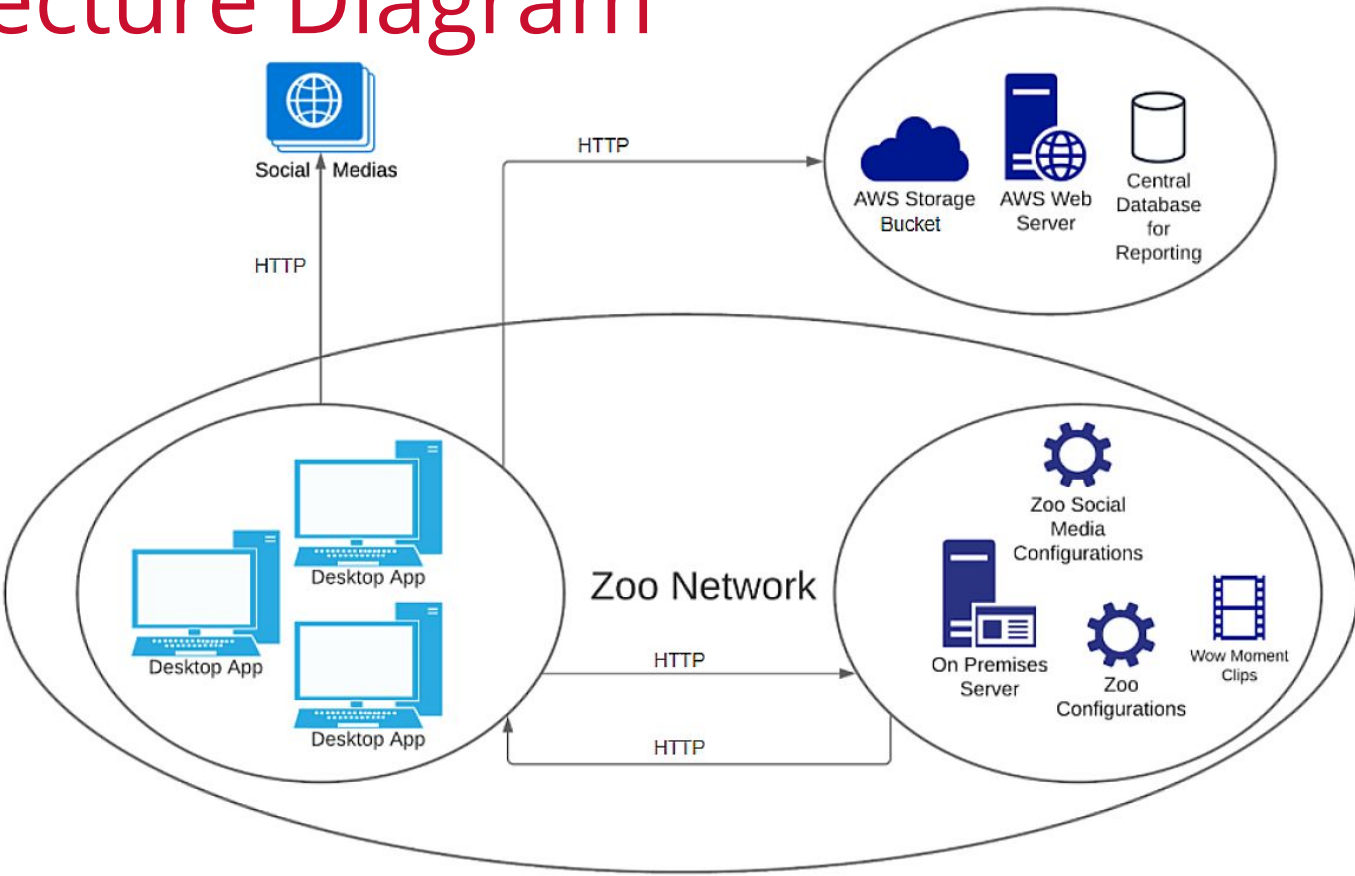
Database Diagram

institutions

id	int
name	varchar(50)
address	varchar(70)
city	varchar(40)
state	varchar(30)
zipcode	int
phone_number	varchar(10)
email	varchar(50)
contact_name	varchar(40)
created_date	datetime

accounts

client_id	int
account_id	int
account_type	varchar(15)
account_name	varchar(50)
number_of_video_uploads	int
created_date	datetime

videos

id	int
client_id	int
account_id	int
video_api_id	int
video_title	string
video_description	text
video_duration	float8
video_views	int
video_likes	int
video_dislikes	int
video_watch_rate	int
video_response	json

Technology

- OS/registry editing

- Network sharing

- Database management

- Installers and updaters

- Electron, Django

Right Click Feature (Windows & macOS)

- Client wanted UI to be OS native
- Ability to publish videos via right-click menu
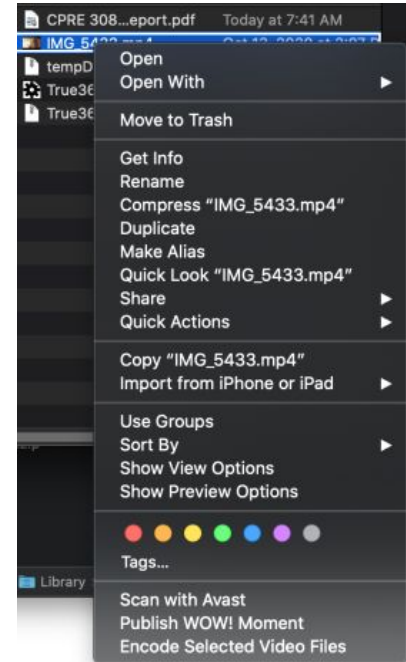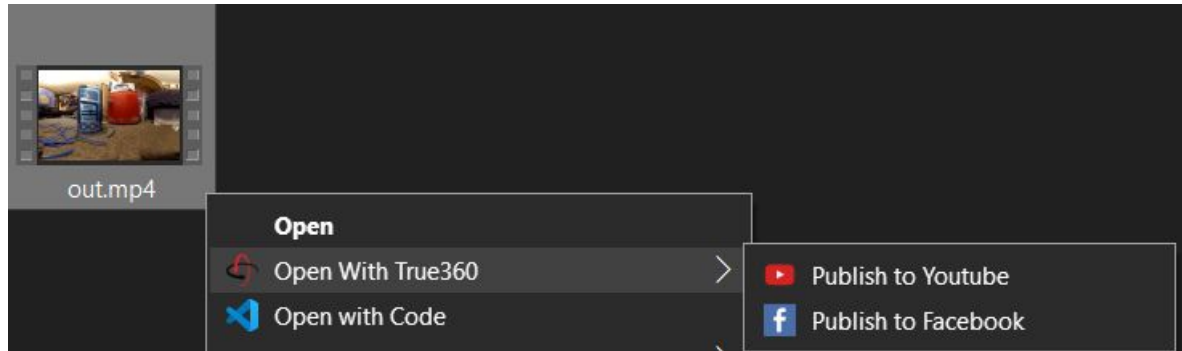
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Wireframe Concepts & Refinements

Wireframe Concepts & Refinements
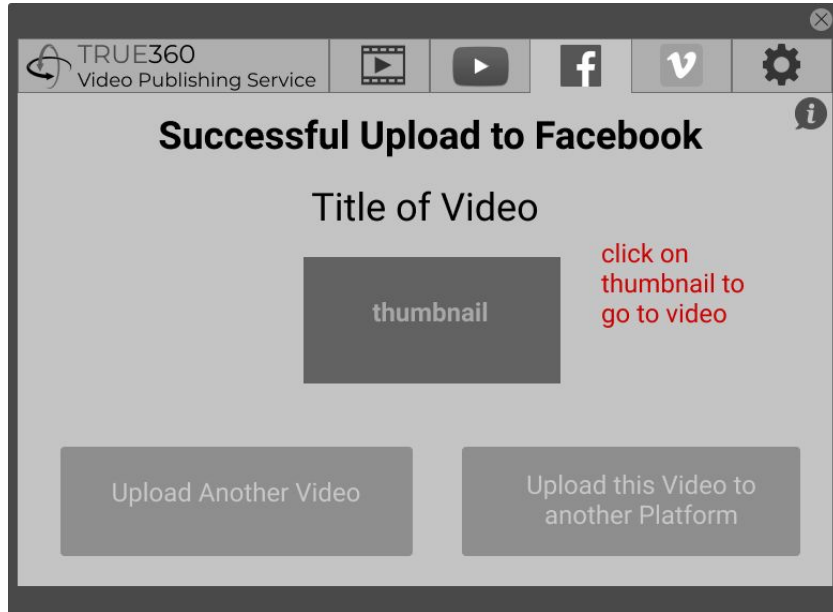
Wireframe Concepts & Refinements
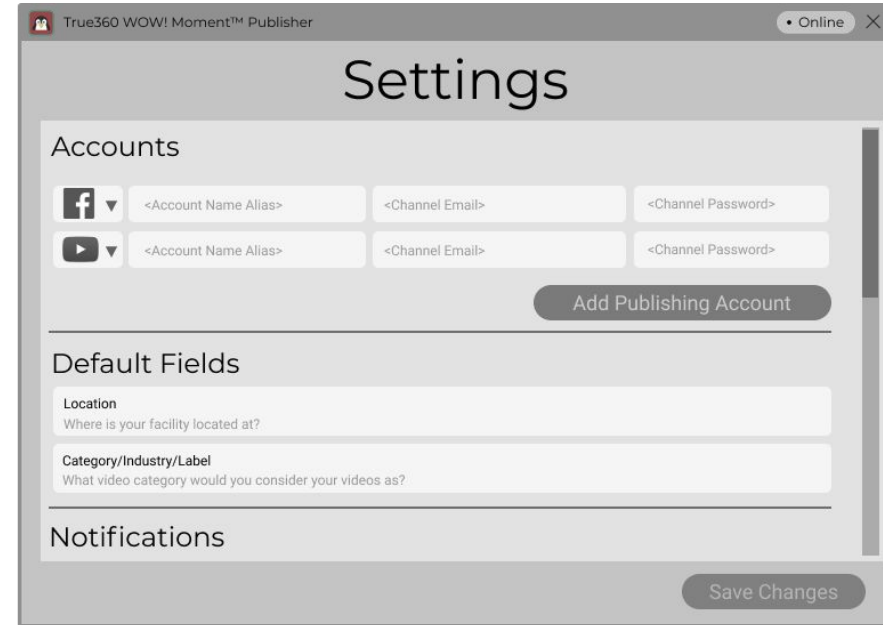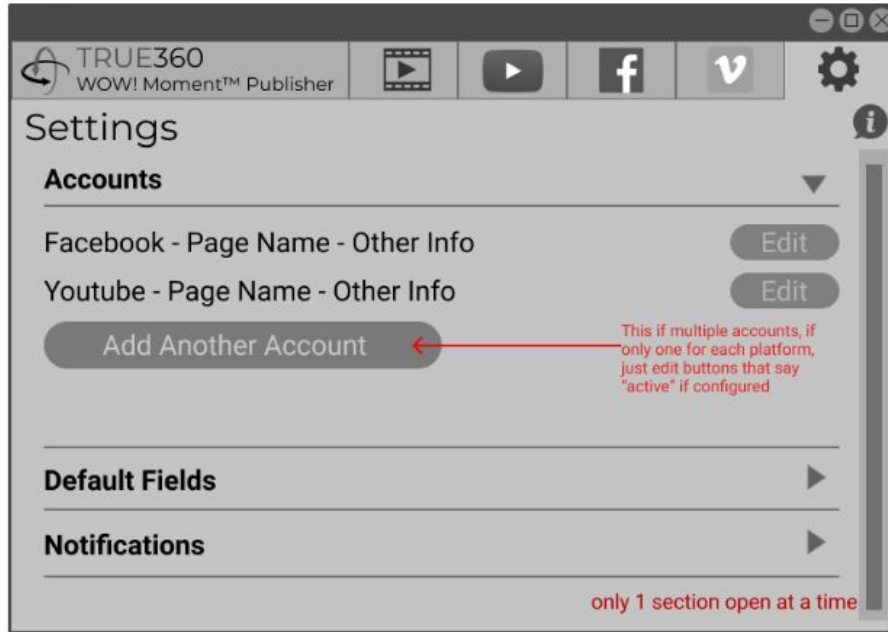
Testing & Implementation

Research and Experimentation

- Right-click handlers on both Windows and Mac
- UI wireframe
- Social media API response information
- AWS cloud server options
- Video compression and metadata options

Development Testing

Unit Testing

- Social Media API commands
- Database insertions/deletion tests

Interface/Integration Testing

- Spectron will be used for front end
- SinonJS will be used for back end

Acceptance Testing

- Specific Acceptance Criteria
- Weekly Demos with Client

Project Plan

Project Phases

- Environment Setup with Managed Source Control Process

- Basic Functionality Development

- Finalizing Advanced Functionality Development

- Complete Functionality with UI Development and Testing

Conclusion

Technical Challenges

1. Meeting design specifications
2. Registry modification
3. macOS support
4. Learning the Django framework
5. Learning how to use Electron
6. HTML Framework (Angular, React)
7. Overcoming Senioritis (Procrastination)

Current Project Status

- Right Click Features
- Electron App Generation
- Amazon Web Server and Database
- Video API Upload
- User Interface
- Video Compression

Current Plans

- Complete the Desktop App

- Complete the Publishing Process

| Camera setup within zoo enclosure | → | Camera records 24/7 hour footage | → | WOW! Moments are created | → | WOW! Moments are sent to zoo employees | → | Zoo employees select WOW! Moments to share | → | WOW! Moments get published on social media |