Tailored Tutoring Co.

Business-Web Solutions

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The Online Tutoring Market

- Online Tutoring Industry: Globally valued at $63.57 Billion

    - Market will double by 2021 (12.75% growth/yr)

    - In the US alone:

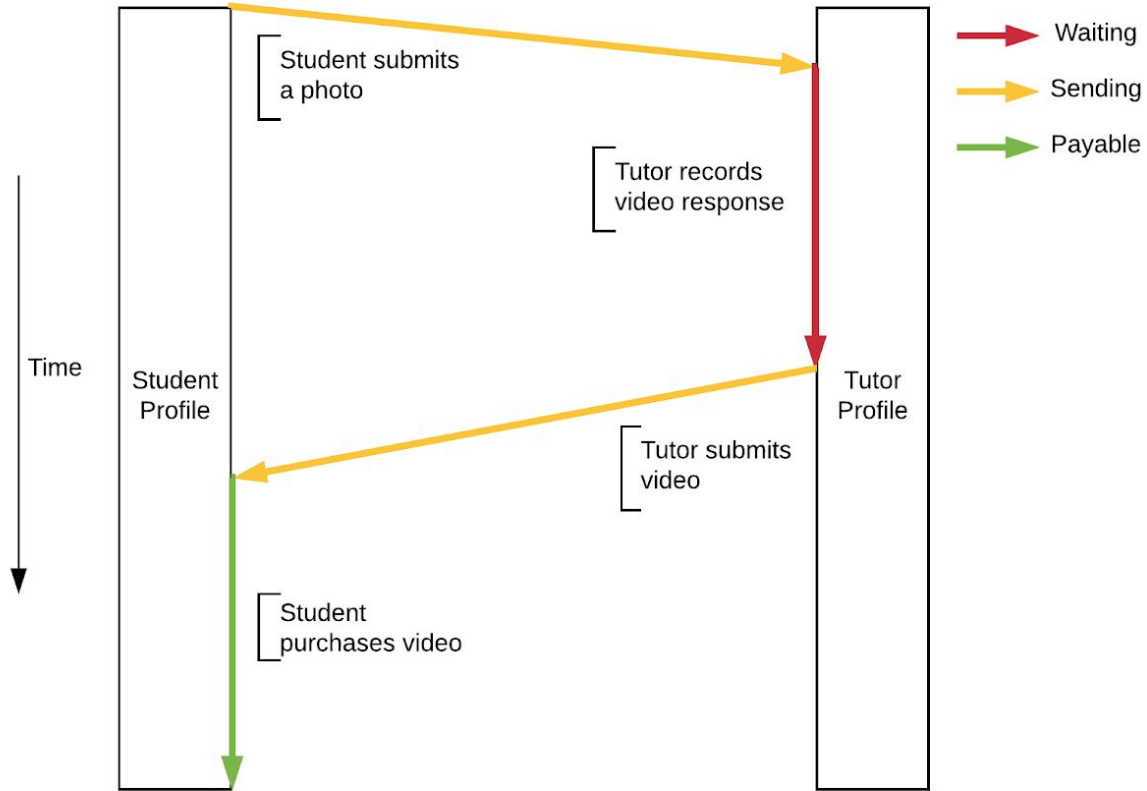   - 11,000 Jobs

        - $411 million annual revenue

Our Client:

- **Tailored Tutoring Co.**
- CEO & Founder Rob Lokken
  - Individualized Study Help
  - Homework Submission Service
    - On-Demand Help, no appointments needed
    - Convenient and Easy-to-use

Ideal Service

Time

Student Profile

Student submits a photo

Tutor records video response

Tutor submits video

Student purchases video

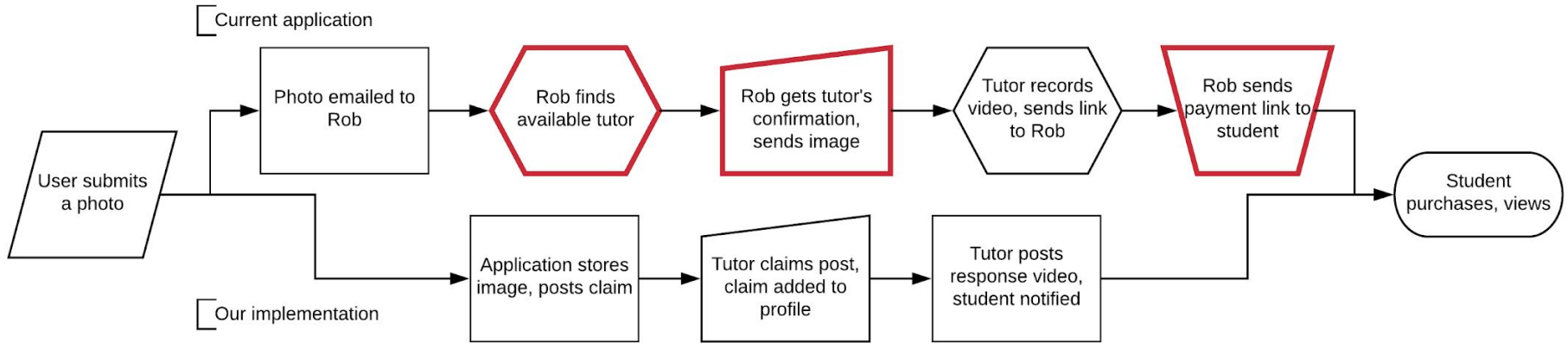Tutor Profile

Waiting

Sending

Payable

Problem Statement

- Current Process:
  - Not Automated
  - Very Tedious for Mr. Lokken
  - Clunky User-Submission process

- With our implementation
  - Automated & Intuitive
  - Clean User Interface
  - Streamlined Process

Workflow Comparison

Rob Involved

Current application

User submits a photo → Photo emailed to Rob → Rob finds available tutor → Rob gets tutor's confirmation, sends image → Tutor records video, sends link to Rob → Rob sends payment link to student → Student purchases, views

Our implementation

User submits a photo → Application stores image, posts claim → Tutor claims post, claim added to profile → Tutor posts response video, student notified → Student purchases, views
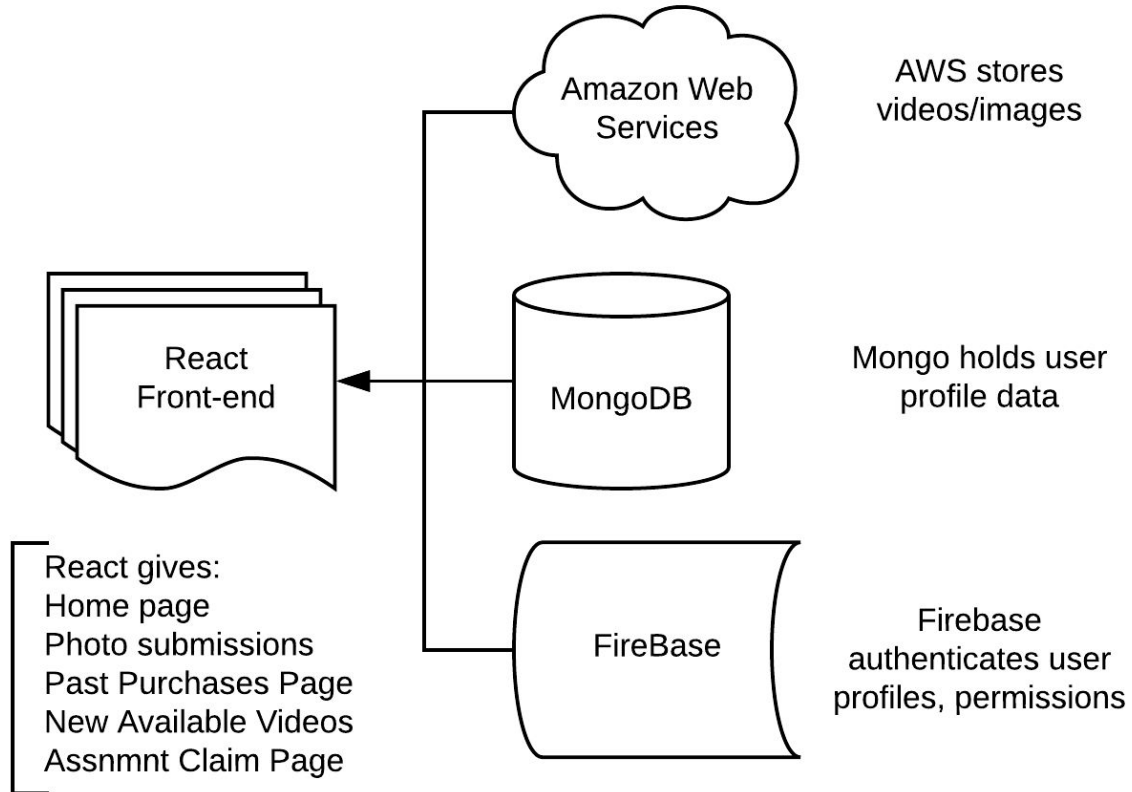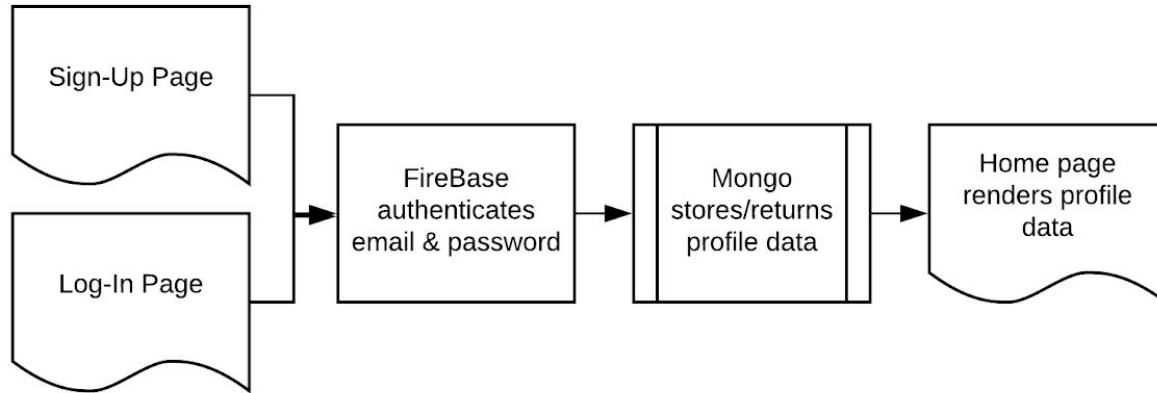
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Key Requirements

- Student & Tutor Profiles
  - Customizable for each User

- Image and Video services
  - Students' homework photos
  - Tutors' video responses

- Notification System
  - Assignment Claims
  - Video Notifications
  - Email Notifications

- Integrated Payment
  - On-site Payment
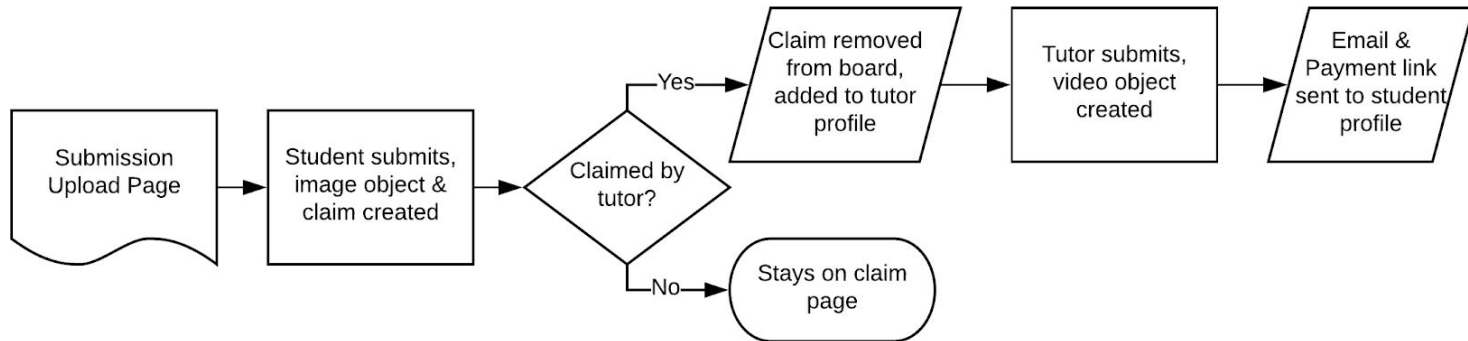 - Third-Party Payment w/ PayPal

Implementation Overview

Amazon Web Services

AWS stores videos/images

React Front-end

MongoDB

Mongo holds user profile data

React gives:
Home page
Photo submissions
Past Purchases Page
New Available Videos
Assnmnt Claim Page

FireBase

Firebase authenticates user profiles, permissions

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Architectural Overview

- Profile Creation & Authentication
  - Firebase provides user IDs, requires unique email
  - User data stored in MongoDB

```
Sign-Up Page ──┐
               ├──► FireBase            ──► Mongo            ──► Home page
               │    authenticates           stores/returns       renders profile
Log-In Page ───┘    email & password        profile data         data
```
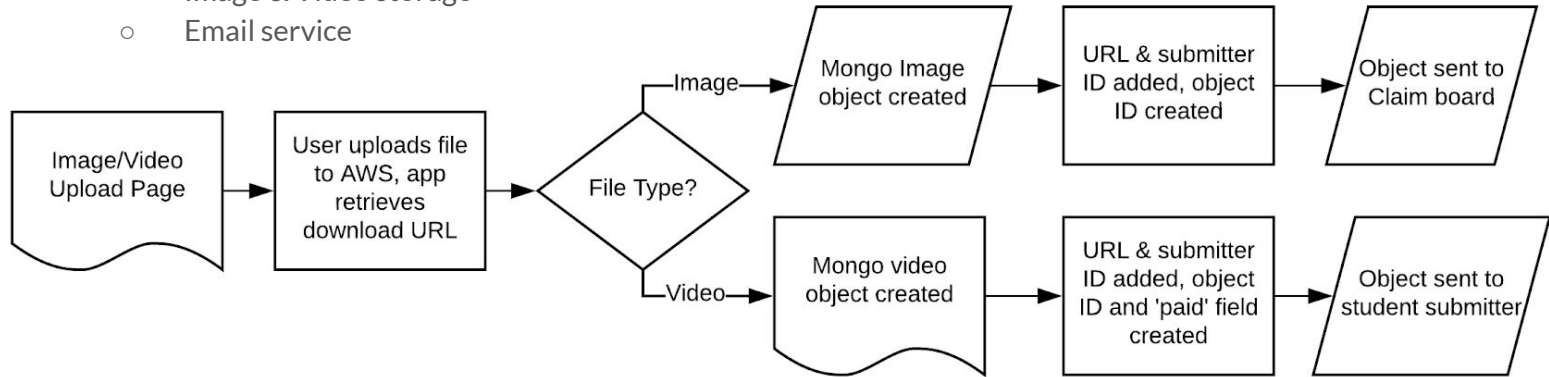
Architectural Overview cont'd

- Assignment Claims & Notification
  - Image uploads create a claim, with an Image object and ID. When claimed, claim added to tutor's account.
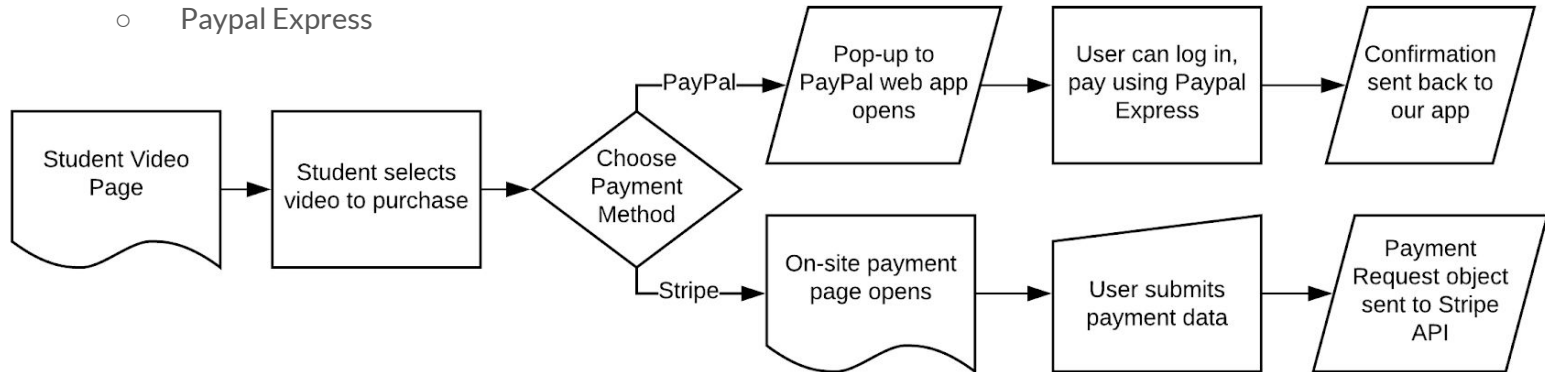 - Response video sent to student's account, payment prompted

Architectural Overview cont'd

- Amazon Web Services
  - Image & Video storage
  - Email service

Architectural Overview cont'd

- On-site & Third-party Payment
  - Stripe JS
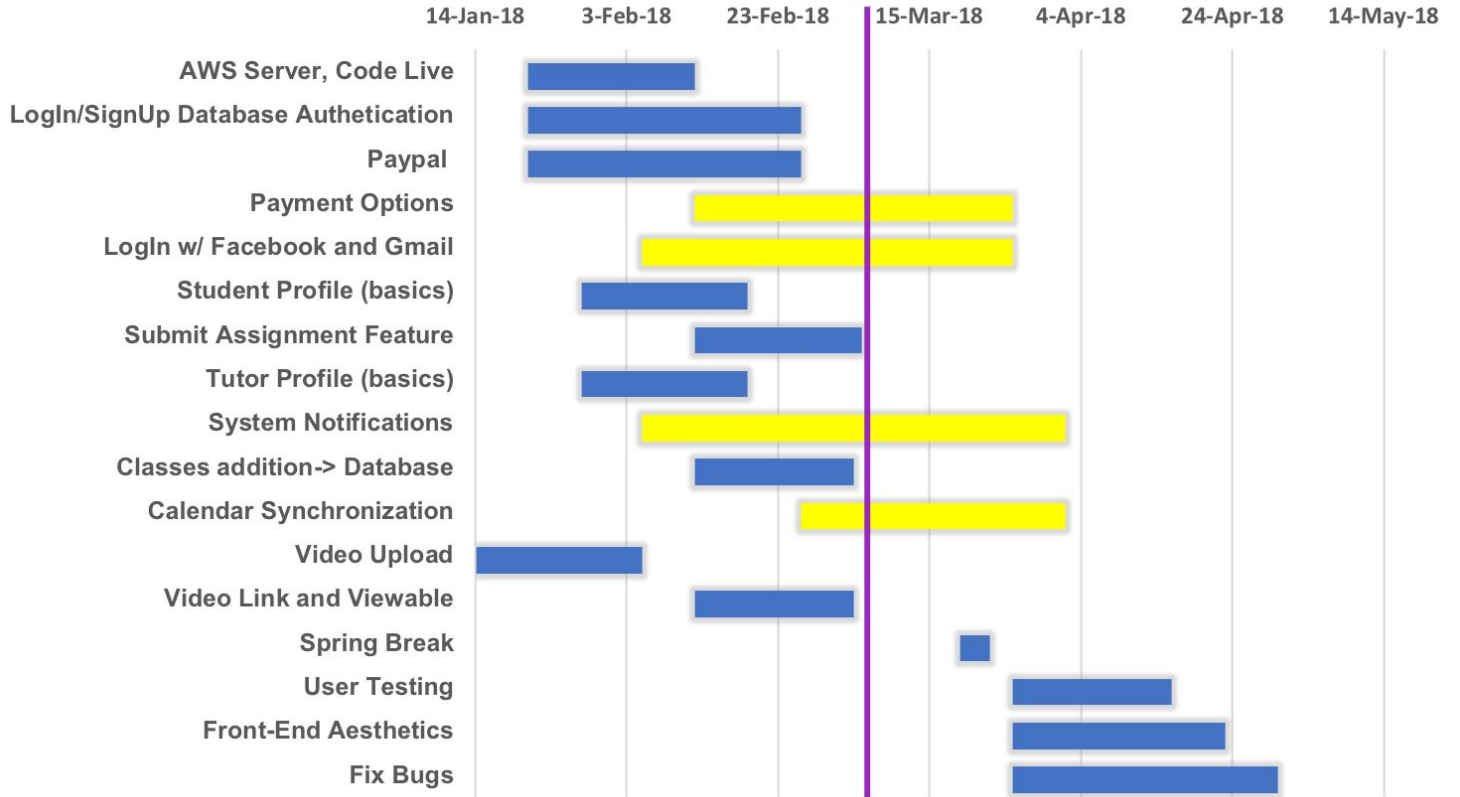 - Paypal Express

Challenges & Resolutions

- Challenge 1- Payment Options
  - On-Site Payment:
    - Fees
    - Security Risks
  - Paypal Express (Placeholder solution)

- Challenge 2- Link Hw Submissions to Tutors
  - Submissions linking to appropriate tutors
  - Resolution:
    - Claim Board
    - Image/Video Objects

- Challenge 3- Secure Profile Authentication
  - Securing passwords
  - Sensitive data stored outside of state
  - Resolution:
    - FireBase Authentication

Current Work

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Conclusion

- Online Tutoring Platform -> $$$$

- Sponsor niche: HW Submission Feature

- Sponsor problem: Cumbersome manual operation

- Our solution: Web-Application Platform
  - Automated & Intuitive
  - Clean User Interface
  - Streamlined Process