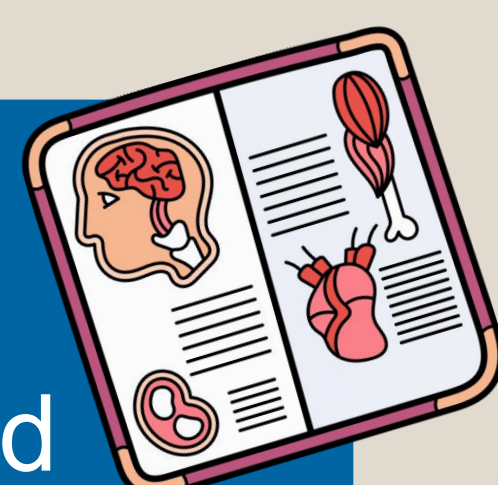


Diversified Anatomy and Physiology Lab Resource App

Team: Dayra Quinonez, Nicole Sylvester, Rino De Guzman, Bailey Rosato
Client: Elise Donovan, Sneha Vissa, Adonna Rometo | NAU, Flagstaff, AZ
Team Mentor: Tayyaba Shaheen



Background

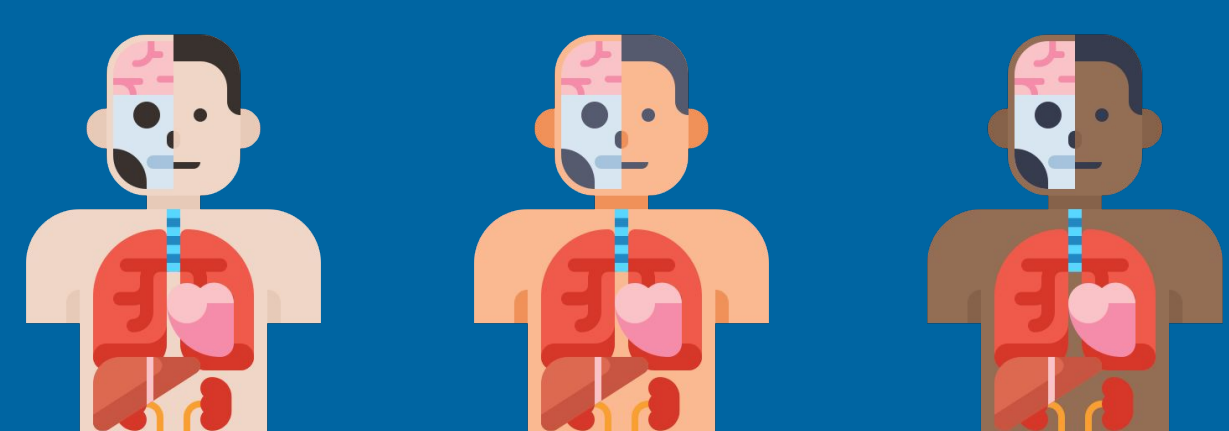


Lack of diversity in anatomy and physiology content limits students' connection to the material, impacting their quality of education

In pathology textbooks from 1996 to 2018, **light skin colors** made up **95.7%** of all images

Goal

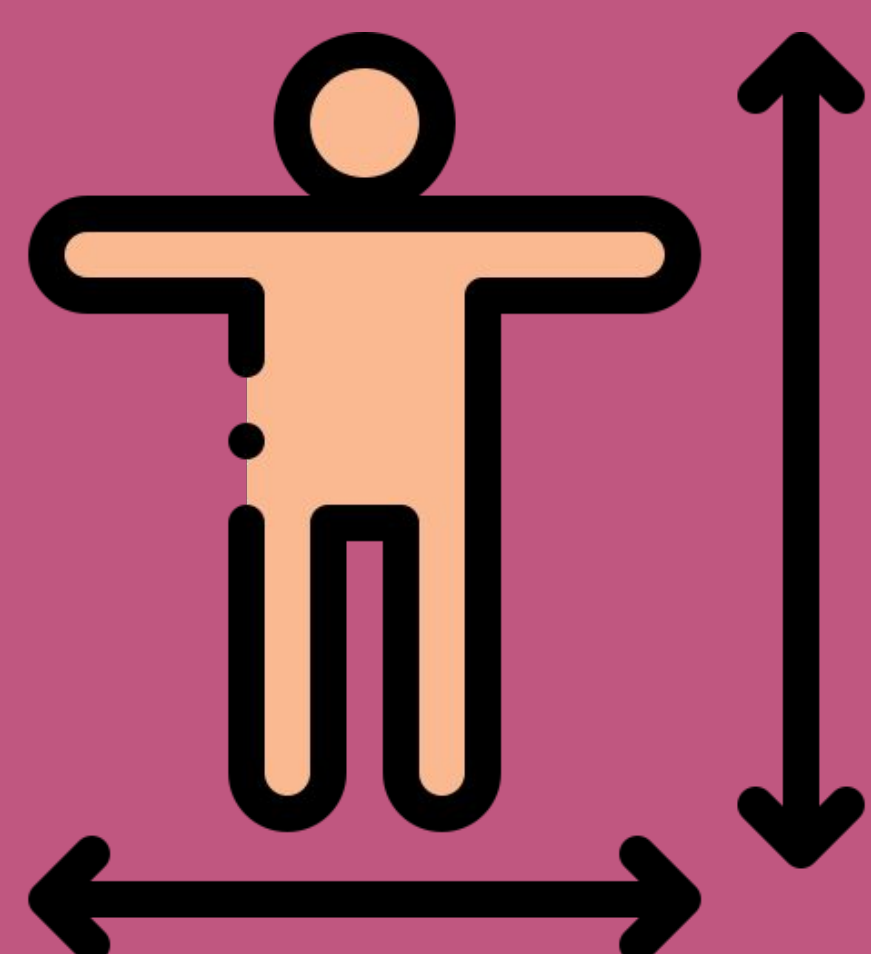
Diversify virtual models to boost inclusivity, engagement, and students' quality of education



Results

Interactive Web Application

- Diversified anatomical models
- Promotes educational diversity and inclusivity
- Displays body regions and planes of sectioning on diverse models

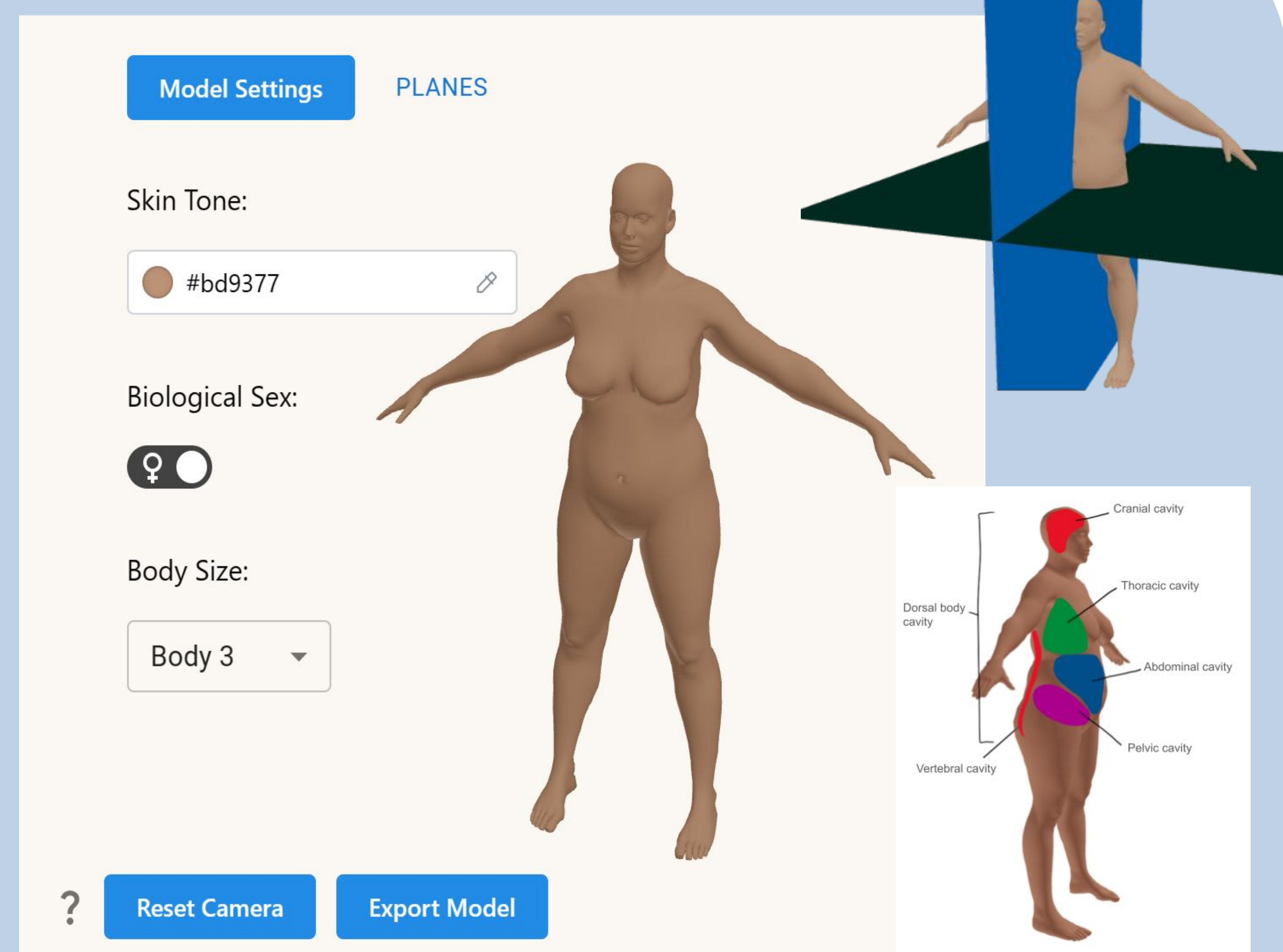


Team Website

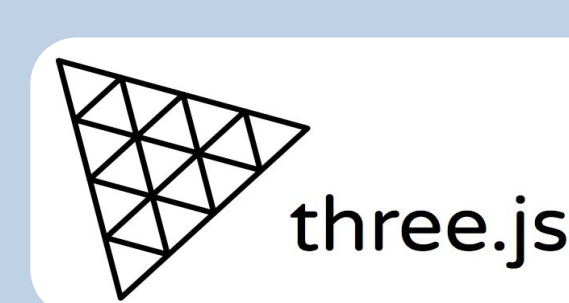
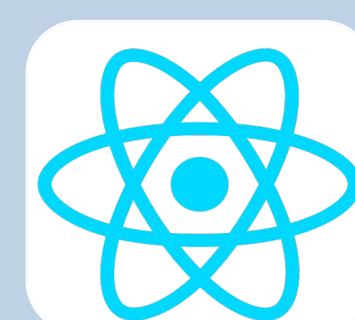


Solution

Interface



Reset Camera Export Model



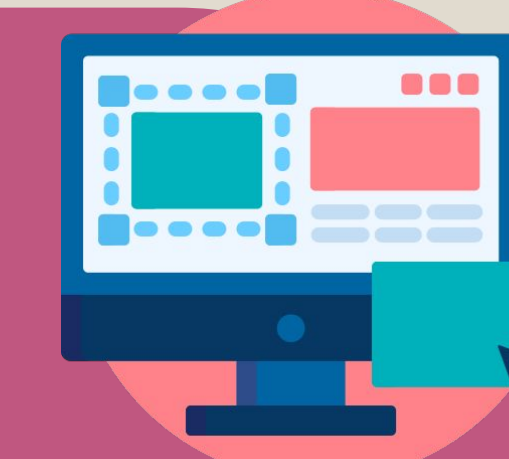
Key Features

- Adjust skin tone, biological sex, and body size
- Ability to zoom, rotate, and export models
- Whiteboard to annotate, write, and export notes
- Stores and manages data to ensure real-time updates
- Quick tutorials for users

Database

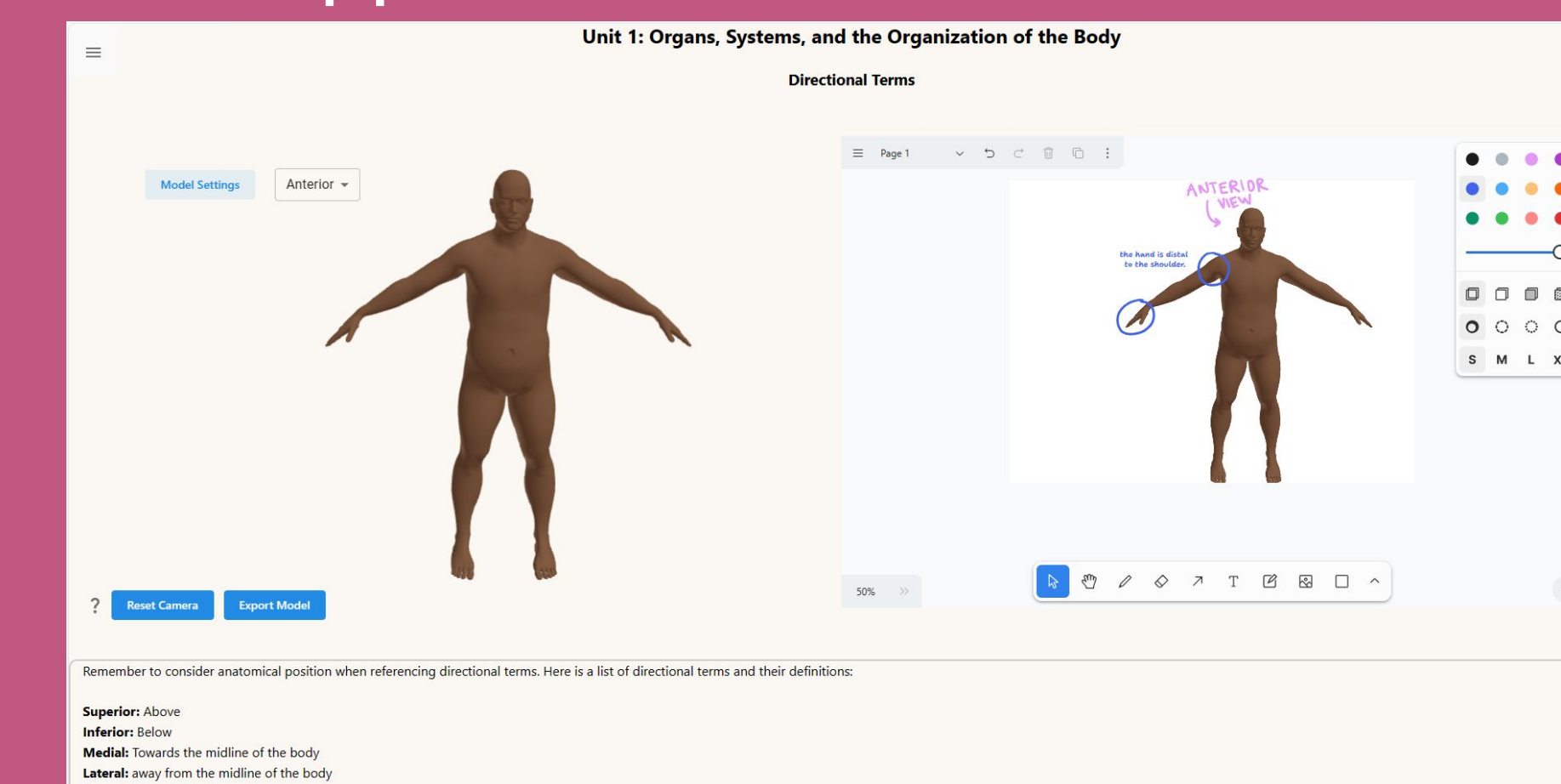


Implementation Overview



Front-End:

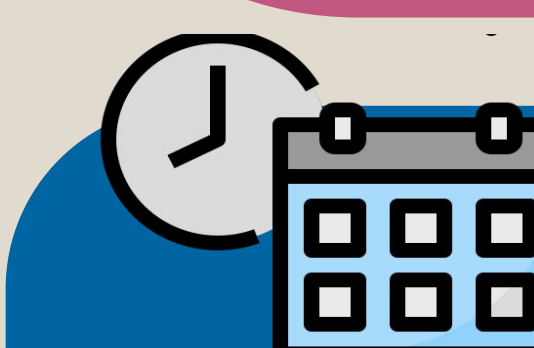
- **Course Entry:** access web application via course code
- **Main Menu:** navigate pages by selecting a unit and subunit
- **Subunit Page:** displays course content, interactive 3D models, and whiteboard
- **User Guide:** explains each feature of the application



Subunit Page

Back-End:

- **Firestore Realtime Database:** stores course data (units & subunits)
- **Cloud Storage for Firebase:** stores files and images



Future Work

Software by students for students

Future capstone groups or student employees will expand BIO201 units and model customizations