Yelp, for ASU Bathrooms

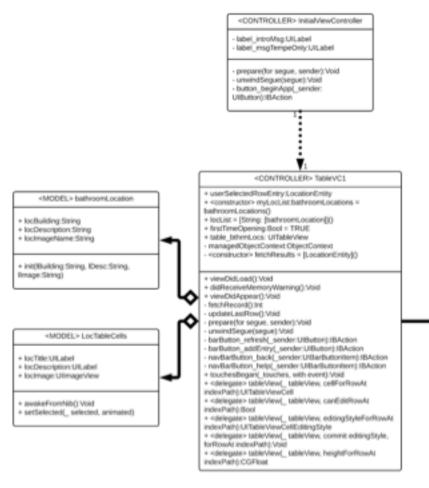
CSE335 F18

Patrick Archer

Project Idea

- Locate, review, and rate bathroom facilities around campus
- Idea came from a co-worker
 - She wanted to know which facilities were the most quiet or cleanest
- An easy-to-use and clean UI would improve user efficiency when trying to locate a bathroom that suites their needs/desires

UML Class Diagram



<CONTROLLER> TableEntryDetailVC image_selectedLoc:UllmageView - label_locBuilding:UILabel label_locDesc:UlLabel label_selectedLocBuilding:UILabel label_selectedt.ocDesc:Ult.abel - label_reviewsHeader:UILabel slider cleanliness:UtSlider slider_popularityOfPublicUse:UtSlider slider_easeOfAccess:UtSlider label_reviewCleanliness:UILabel label_reviewPopularity:UILabel label_reviewEofA:UILabel label_cleanlinessSliderValue:UILabel label_popularitySliderValue:UILabel label_eofaSlider/talue:UILabel userSelectedLoc:LocationEntity - userSelectedIndex IndexPath tempBuildingName:String temp@uldingDesc String tempBuldingImage:NSData tempReviewCleanliness:Int16 tempReviewPopularity:Int16 tempReviewEptA:Int16 <constructor> picker = UltmagePickerController() selectedimage:Ulimage managedObjectContext ObjectContext <constructor> fetchResults = [LocationEntity]() viewDidLoadQ:Void didReceiveMemoryWarning(): Void viewDidAppeart):Void fetch/Record():Int. - prepare(for segue, sender): Void unwindSegue(segue):Void slider_cleanliness(_sender):IBAction slider_popularityOfPublicUseC_sender(:1BAction slider_easeOfAccess(_ sender):IBAction navBarButton back[_sender]:tBAction barButton_help(_sender): IBAction barbutton_editEntry(_sender):tBAction barbutton_saveEntry(_ sender):f8Action barbutton_getGPSDirections(_sender):IBAction

- barButton_changelmage(_ sender):fBAction + <delegate> imagePickerController[_picker, didFinishPickingMediaWithInfo info): Void

+ <delegate> imagePickerControllerDidCancel(_picker):Void

<CONTROLLER> MagVC

- + userSelectedLoc.LocationEntity
- userSelectedIndex.IndexPath
- + locationAddressString:String
- + locationDestLat String
- + locationDestLon:String
- + currentPlacemark:CLPlacemark
- + sourcePlacemark:CLPlacemark
- + destinationPlacemark:CLPlacemark
- currentTransportType =
- MKDirectionsTransportType.automobile
- current/Route:MKRoute
- mapView:MKMapView
- label latCoords:UlLabel
- label_lonCoords:UILabel
- viewDidLoad():Void
- didReceiveMemoryWisming():Void
- viewDidAppear0:"Void
- prepare(for segue, sender): Void
- + <delegate> mapView(_ mapView,
- rendererFor overlay):MKOverlayRenderer
- barButton_back(_sender): IBAction
- barButton_help(_sender):/BAction
- petLocation1():Void

MVC Architecture Diagram

Patrick Archer - 1208960164 CSE335 F18 – Project Phase 3 MVC Diagram

Notify:

Location add/delete/edit Picker view delegation (for images) Various alert notifications (eg Help) Hardware incompatibility (camera) Invalid data entered/utilized

Update:

Location add/delete/edit Submit image from library/camera

MODELS

- Facilitates CoreData utilization
- Construct structure and objectification of all locations, reviews, etc. (backend data manage)
- Details "location" data structure/object
- Construct/define location dictionary database
- Defines table section headers
- Defines table cell construction and structure

CONTROLLERS

- Handle UITable, delegates, data sources
- Responsible for executing and retrieving all GeoLocation/MKMap/WebAPI call data returns
- Responsible for Location Services utilization and configuration
- Responsible for error handling
- Responsible for handling segue triggers and unwind protocols
- Utilize CoreData to fetch, modify, and store data locally on user devices

User Actions:

Tap control buttons Modify slider values Tap navigation buttons Interact with UITable

User Update:

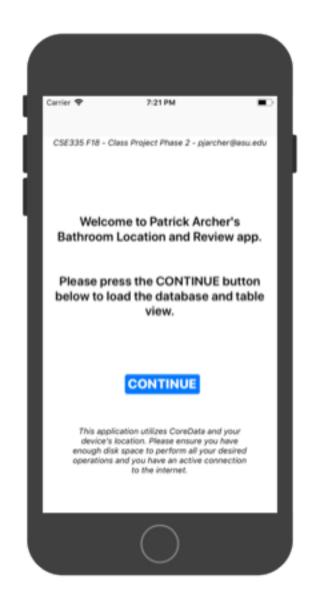
Update location table & entries Update location information Update edited entries

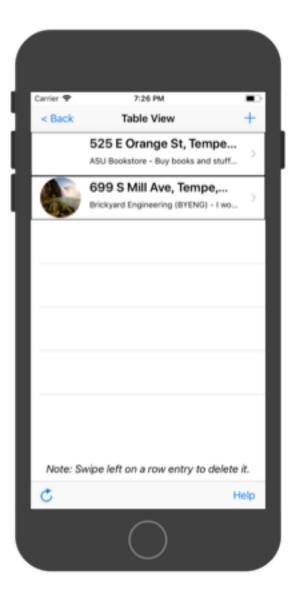


- Reacts to user taps, swipes, and scrolls
- Displays content to user, including the main table of information, a detailed-view page, and a GPS map view page.
- Notifies user of special events via alerts and popups
 - "HELP" alerts/popups/instructions
 - Add/Edit location information via popup
- Gives the user management over the table/database via buttons, sliders, and various other action outlets

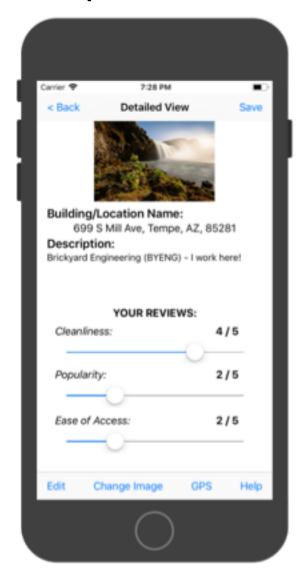
Capabilities

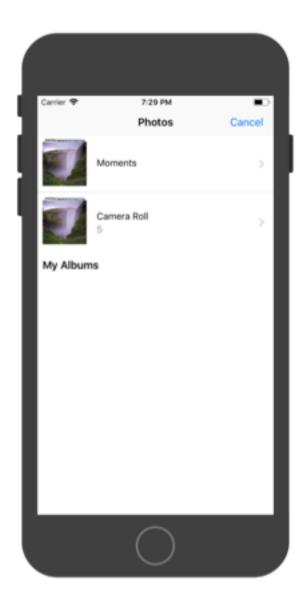


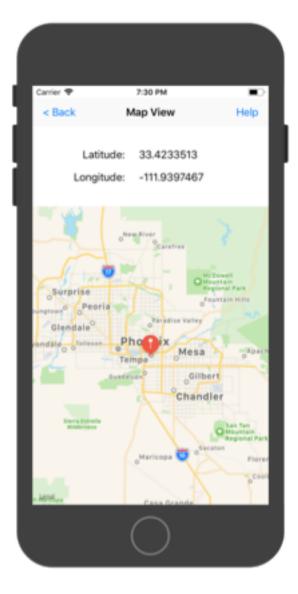




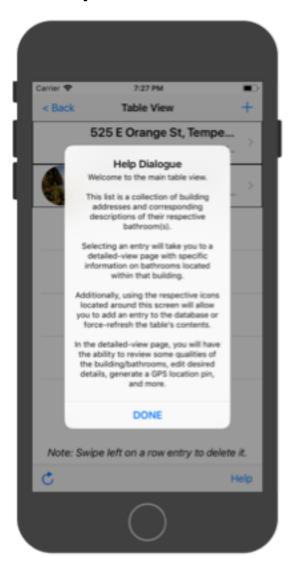
Capabilities

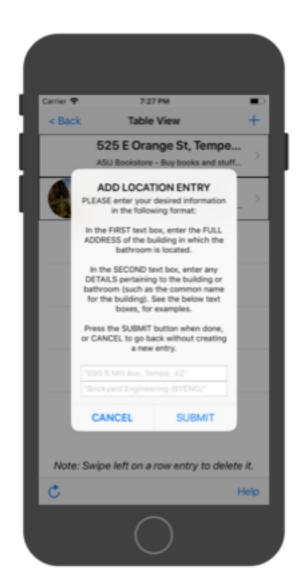


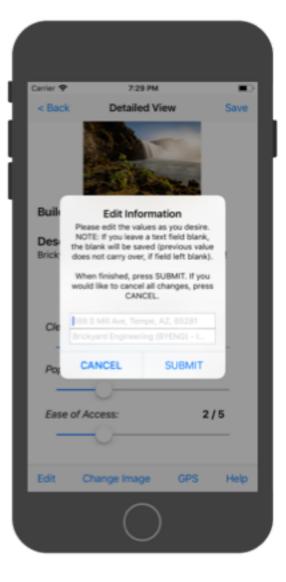




Capabilities







Limitations

- Since I utilized CoreData instead of a Cloud FireBase, the location database is local to a user's individual device.
- Only 3 review topics
 - Could certainly include more.
- GPS does not calculate a route to take the user, from their current location, to their selected bathroom destination.
 - Only displays the destination on a map with a placemark pin & displays GPS longitude/latitude coordinates.

Lessons Learned

- Procrastinating less is tough.
- Making a clean and effective UI is tough.
- Effectively implementing MVC protocol is tough.
- Efficiently passing/sharing data through different views is tough.
- Making actually-useful apps is tough.
- Catching all errors and special cases is tough.
- Translating thoughts/ideas for an apps function into real code is even tougher.

Suggestions for Future Improvements

- Allow for a little more time to work on project
 - Not that the current schedule is bad, but it seems sort of rushed at the end.
 - I would like to take necessary time to make a good app, while not having to negatively impact my time spent on other courses.