**Propertech Rental Management Software**

**Learning objective:** Build a Rental Management Application

**Technologies:** ASP.NET Web API, JavaScript, jQuery, AJAX, HTML, CSS, Postman

**Anonymous User**

As an anonymous user, I want to view a property’s current vacancies and the details of that unit

As an anonymous user, I want to contact the property manager about a specific unit vacancy and send an email to the property using MailKit API

As an anonymous user, I want to be able to see the location of the property, neighborhood highlights (points of interest), and the property’s amenities using Google Location API, Google Cities API, and TeleportPublicAPI

**Customer**

As a customer, I want to view my property’s current vacancies in the event I want to change units at the conclusion of my lease

As a customer, I want to be able to renew my lease from the resident portal

As a customer, I want to be able to pay my rent from the resident portal using Paypal API

As a customer, I want to be able to view important lease documents in a .pdf format in the resident portal

As a customer, I want to be able to engage with a chat bot via Chat Bot Platform to discuss common maintenance issues I may be able to resolve myself

As a customer, I want to be able to send a video via the application along with details to a maintenance technician in the event the maintenance bot cannot help me resolve my issue

As a customer, I want to be able to see the maintenance feedback within the application which contains the estimated time of completion for the maintenance request

As a customer, I want to be able to see the status and history of maintenance requests

As a customer, I want to be able to rate the rendered maintenance

**Maintenance**

As a maintenance technician, I want to see a list of all pending maintenance requests

As a maintenance technician, I want to see a single maintenance request and its details including the video within the application

As a maintenance technician, I want to be able to send feedback to the customer within the application detailing the request time projected completion status

As a maintenance technician, I want to be able to complete a maintenance request

**Manager**

As a manager, I want to be able to approve accounts and assign them as either a Resident or Maintenance Tech

As a manager, I want to be able to update my property in the application with all applicable buildings and units to accurately reflect my property composition

As a manager, I want to be able to view overdue tenant balances and be able to send a message via Email API to overdue accountholders

As a manager, I want to be able to view various data analytics of the property using Chart.JS. This would include the following reports:

* Monthly revenue intake
* Quarterly earnings
* Yearly bar graph showing monthly percentage of occupancy
* Projected vacancy amounts in 30, 60, and 90 day increments
* Yearly bar graph showing the monthly maintenance request completion percentage
* Bar graph showing average maintenance completion time by maintenance technician
* Bar graph showing customer maintenance satisfaction

**Bonus**

Bonus: As an anonymous user, I want to be able to complete a pre-screening application for a unit vacancy

Bonus: As an anonymous user, I want to be able to ask FAQs by engaging with a chat bot

Bonus: As a maintenance technician, I want to be able to schedule a maintenance action

Bonus: As a maintenance technician, I want to be able to view a weekly schedule of my projected maintenance schedule

Bonus: As a manager, I want to be able to create a database of units within my property complex by uploading a .csv file with all details