Zoo Animal Maintenance Request
Functional Requirements Document

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INTRODUCTION

The Functional Requirements Document (FRD) is a formal statement of the application's functional and operational requirements. It serves as a contract between the developer and the customer for whom the system is being developed. The developer agrees to deliver a system that meets all functional requirements and provides the capabilities specified in the FRD. The client will approve the product if it satisfies the requirements and provides the aforementioned capabilities.

The information in the FRD is solution-independent. It is a statement of what the application is to do, and the persona stories surrounding it. There is no commitment to any particular design outside of the outlined personae.

Project Description

The client is the National Metro Zoo, that is filled with animals and pens that need to be managed. The Zoo Animal Maintenance Request (AMR) will serve as an automated system for tracking service requests on zoo animals and pens. Utilizing Appian, AMR will bring order, visibility and accountability to maintaining these requests. It will also provide status and transaction history for requesters and fulfillers of the requests.

Currently, Zoo Directors at the National Metro Zoo manage animal maintenance requests by hand. It is incumbent on the director to track status and inventory. There is no executive visibility into the current status of an animal, pen, or request, nor sufficient detail into how long maintenance will take. In addition, there is no line of communication or comment throughout the process, and currently a keeper must reach out to whoever fulfills the request for an update.

With AMR, the entire maintenance request process is handled online. Employees working at the zoo should submit a request on either an animal or set of pen equipment, and be handled by a fulfillment team. The automation of these tasks facilitates more robust maintenance requests, status checking, recording of services, and reporting on inventory and costs.

Requirements

You are required to design, build, and configure the AMR application according to the persona stories. These stories will provide client requirements from the perspectives of those users of the application.

All requirements outlined in the persona story must be met; and in addition, your application must include some base functionality outlined below.

Evaluation

Evaluators are familiar with the persona stories; In addition to functional specifications, your application will also be assessed on its elegance as well as accordance to Appian Best Practices, and the Appian Style Guide.

Submission Details

Application must be submitted and packaged in an exported .zip file. In addition, all other notes and instructions should be provided with the .zip file.

Persona Stories

Adam, the Administrator

Adam is a production application administrator. He provides support when a process breaks and can manage the user base as directed by the needs of the Zoo Director and employees. He maintains the application, and is very busy due to management of more than just the AMR.

- Adam exists as the Application Administrator.
    - Adam is also an employee.
- Adam can view all of the treatment and repair requests.
- Adam can monitor the in-flight process instances.

Elaine and Eric, the Employees

Elaine and Eric work at the zoo and are responsible for the day to day operations of the zoo. Their goal is to ensure everything is in order on the ground, and submit any requests for maintenance as needed. Elaine and Eric care about the health and sustainability of the zoo, and want to ensure that all requests are made promptly. They are also experts on each animal in inventory and the pens used.

- Employees manage the animals and pens:
    - Employees add animals and pens to the zoo.
        - Employees must add a photo of the animal or pen.
        - Employees are responsible for naming each animal and pen, and may describe any unique characteristics of them.
        - Animal: Employees keep track of the names, genders, species and ages of all their animals.
        - Pen: Employees keep track of the names and types of each pen.
        - Pen records must display each animal it contains.
    - Employees can view records for both animals and pens.
        - Can filter animals by gender and species.
        - Can filter pen by type.

- ■ Can search animal and pen by their name and ID.
    - ○ Employees can edit the details of either.
        - ■ Including, but not limited to: name, gender, species, age, and photo upload.
    - ○ Employees can re-assign animals to different pens.
    - ○ Employees can remove animals and pens from the zoo.
- ● Employees submit requests to either:
    - ○ Treat an injured animal.
    - ○ Repair a pen in the zoo.
    - ○ Employees must specify a date by which they need a request completed.
    - ○ Employees may upload a file (i.e. photo, document, etc.) as supplemental information for a request.
    - ○ Employees must provide/describe the current status or condition of the animal or pen to support the request.
        - ■ The description cannot exceed 1000 characters
- ● Employees manage their own requests:
    - ○ Employees only see requests submitted by them.
    - ○ Each request keeps track of the date it was submitted.
    - ○ Each request keeps track of the user that submitted it.
    - ○ Employees may cancel a request from the record prior to it being accepted by the fulfillment team.
    - ○ Employees want to know which individual fulfills each request.
    - ○ If a request is rejected, employees will receive a task to edit and re-submit the request.
    - ○ Each request must have a status associated with it to track progression.
    - ○ Employees should see a record for their requests, filtered by:
        - ■ Request Status (Submitted, In Progress, etc.)
        - ■ Cancelled requests
        - ■ Date
            - ● Past two weeks
            - ● Past month
- ● Employees may comment on a record:
    - ○ Comments on animal/pen records result in news posts with record tags.
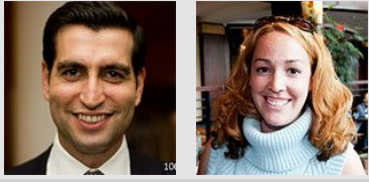
Frank and Felicia, the Fulfillment Officers

Frank and Felicia are fulfillment officers at the zoo and are in charge of identifying any requests for animal treatment or equipment repair and keeping those requests moving along in the right direction. They are in constant communication throughout a request process, and can choose to accept a request and begin working on it, or reject it and send it back to an employee to be refined and re-submitted.

- Frank is in charge of the equipment maintenance team that receives all equipment maintenance requests.
- Felicia is in charge of the medical support team that receives all animal treatment requests.
- Medical and Equipment requests should be received separately.
    - Medical team may only see medical requests.
    - Equipment team may only see equipment requests.
- Fulfillment manages requests for treatment/repair:
    - Accepting a request with optional comments.
    - Rejecting a request with necessary comments.
        - Rejecting a request sends the task back to the requestor, where they may edit and re-submit a request.
        - Rejected requests must be completed within 48 hours, otherwise they will be automatically cancelled.
    - Determines the estimated cost and time to complete.
        - Estimates over $500 must be further approved by the Zoo's Director.
            - If rejected by the Zoo Director, the request is cancelled.
    - Fulfillment wants to see all information submitted from the request, as well as who is the requestor.
- Fulfillment ensures that each accepted request is ultimately completed:
    - Fulfillment (either medical or equipment) will be prompted to go in and complete request.
    - Fulfillment provides the actual cost and date of completion.
    - Fulfillment may provide any final comments.
- Each Friday, the fulfillment team receives a News event outlining:
    - Number of completed requests in the past week.
    - Number of requests delivered late in the past week.
    - Number of over-budget requests (where actual cost outweighed the estimated cost) in the past week.

○ Each should be broken down by Medical and Equipment.

Zoya, the Zoo Director

Zoya is the director at the zoo and is in charge of adding new animals to the zoo as they come in. She has to make sure that all requirements are met in order for the zoo to function effectively. She manages assets, and regularly keeps track of inventory. She wants to know how many healthy animals there are, if the equipment is in good condition, and if there are too many rejected, late, or unanswered requests that can be addressed or taken action upon.

● Zoya wants to see reports, she is the only one able to view them:
  ○ She wants to see an icon to easily identify whether or not:
    ■ A request is over budget (actual cost is greater than estimated cost).
    ■ A request that is delivered/closed later than the date needed.
  ○ Zoya is interested in seeing how the estimated costs compare with the actual costs:
    ■ Zoya wants to see a display of the count of closed requests that were submitted late vs. on time.
    ■ Zoya wants to see a display of the count of closed requests that were over budget.
    ■ Zoya wants to see filters for all completed requests submitted:
      ● Past two weeks.
      ● Past month.
      ● She expects filters to dynamically update the display.
  ○ Zoya wants to be able to drill down into the details of each record and report:
    ■ Zoya has visibility into all records.
    ■ Data in records and reports should have appropriate links (e.g. from a pen record, visiting the record for an animal contained in that pen).
● Zoya receives weekly Friday News postings containing:
  ○ Cost estimates for current open requests in the past week.
  ○ Number of over budget requests in the past week.