Request for Proposals Tracking Application

A web application for CES Planners to track RFPs

At a High Level, What Does the App do?

Organization

- Centralized database to hold all necessary information to carry out the life of an RFP

Automation

- Backend to automate emailing and speed up the RFP building process

Visualization

- Website to display data in a logical fashion

Database

Use PostgreSQL, an open source object-relational database system

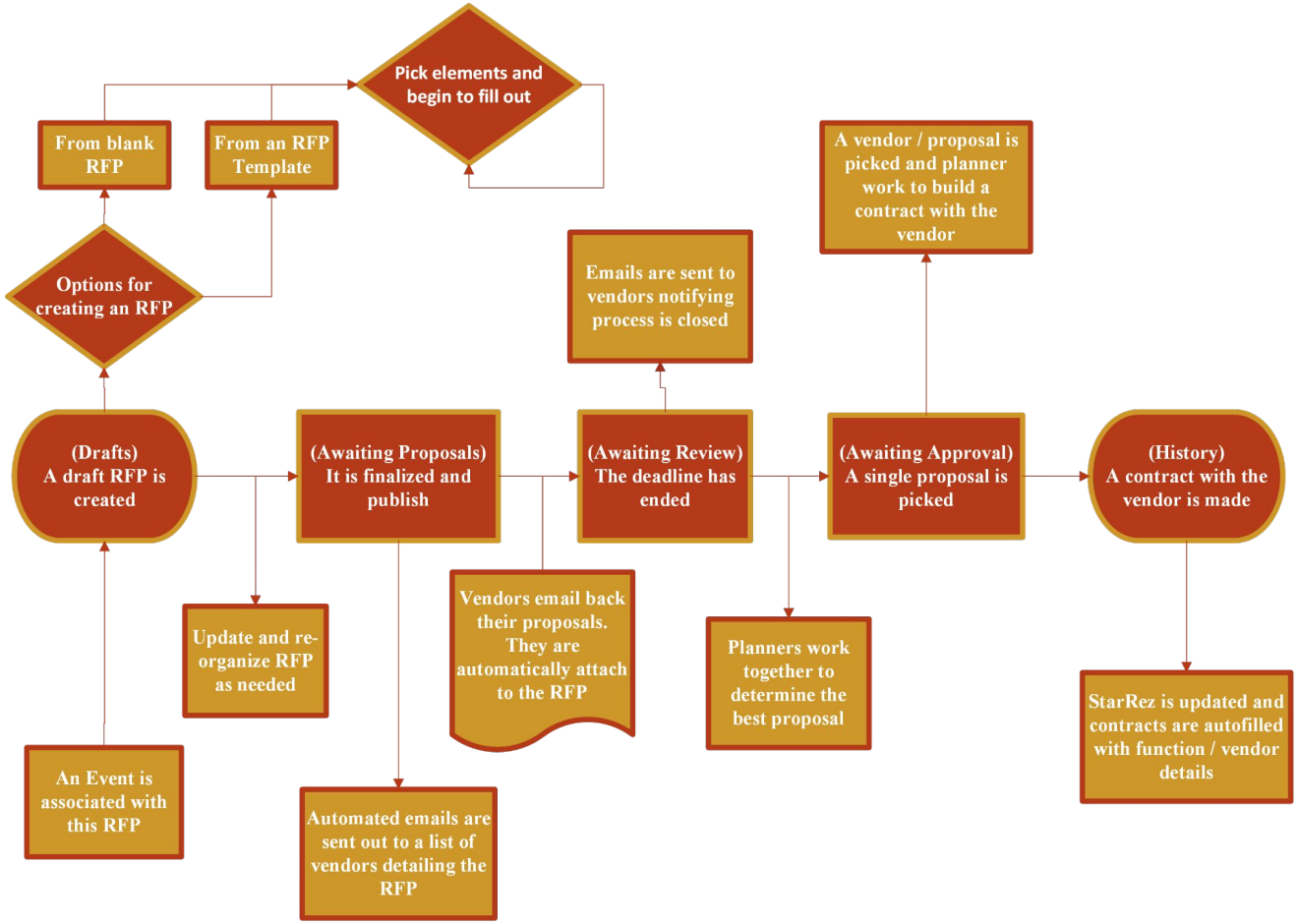
```python

class Event(models.Model):

    # These are the choices for the field attendee_or_master."
    ATTENDEE_PAID = 'AP'
    MASTERBILLED = 'MB'
    MIX = 'AM'

    PAYMENT_CHOICES = [
        (ATTENDEE_PAID, "Attendee Paid"),
        (MASTERBILLED, "Masterbilled"),
        (MIX, "Mix of Masterbilled and Attendee Paid"),
    ]

    name = models.CharField(max_length=200)
    planners = models.ManyToManyField(Planner)
    attendee_estimate = models.CharField(max_length=10)

    attendee_or_master = models.CharField(
        max_length=200,
        choices = PAYMENT_CHOICES,
        default = ATTENDEE_PAID,
    )
    notes = models.CharField(max_length=200)
    # Allow planners to upload event contract
    # contract = models.FilePathField()

```

```python

class RFP(models.Model):
    # These are the choices for the field rfp_type.
    HOTEL = 'HT'
    CATERING = 'CA'
    EVENT_SPACE = 'ES'

    RFP_TYPE_CHOICES = [
        (HOTEL, 'Hotel'),
        (CATERING, 'Catering'),
        (EVENT_SPACE, 'Event Space'),
    ]

    # These are the choices for the field status.
    DRAFT = 'DR'
    AWAITING_PROPOSALS = 'AP'
    AWAITING_REVIEW = 'AR'
    AWAITING_APPROVAL = 'AA'
    APPROVED = 'AV'

    RFP_STATUS_CHOICES = [
        (DRAFT, 'Draft'),
        (AWAITING_PROPOSALS, 'Awaiting Proposals'),
        (AWAITING_REVIEW, 'Awaiting Review'),
        (AWAITING_APPROVAL, 'Awaiting Approval'),
        (APPROVED, 'Approved'),
    ]

    title = models.CharField(max_length=200)
    event = models.ForeignKey(
        Event,
        related_name = 'rfps',
        on_delete=models.CASCADE
    )
    planners = models.ManyToManyField(Planner)
    rfp_type = models.CharField(
        max_length=5,
        choices=RFP_TYPE_CHOICES,
        default=HOTEL,
    )
    status = models.CharField(
        max_length=10,
        choices=RFP_STATUS_CHOICES,
        default=DRAFT,
    )
    deadline = models.DateTimeField()
    description = models.CharField(max_length=1000)
    details = models.JSONField()
```

```python

class Vendor(models.Model):

    # These are the choices for the field vendor_type.
    HOTEL = 'HT'
    CATERING = 'CA'
    EVENT_SPACE = 'ES'

    VENDOR_TYPE_CHOICES = [
        (HOTEL, 'Hotel'),
        (CATERING, 'Catering'),
        (EVENT_SPACE, 'Event Space'),
    ]

    name = models.CharField(max_length=200)
    vendor_type = models.CharField(
        max_length=5,
        choices=VENDOR_TYPE_CHOICES,
        default=HOTEL,
    )
    email = models.EmailField()

    # Error message if the phone number entered is not in the format
    # xxx-xxx-xxxx.
    phone_error = "Phone number is not in the format xxx-xxx-xxxx."

     # Regular expression for the desired phone number format.
    phone_format = RegexValidator(
        regex = r'^\d{3}-\d{3}-\d{4}$',
        message = phone_error,
    )

    phone = models.CharField(validators=[phone_format], max_length=50)

    details = models.JSONField()

```

Workflow

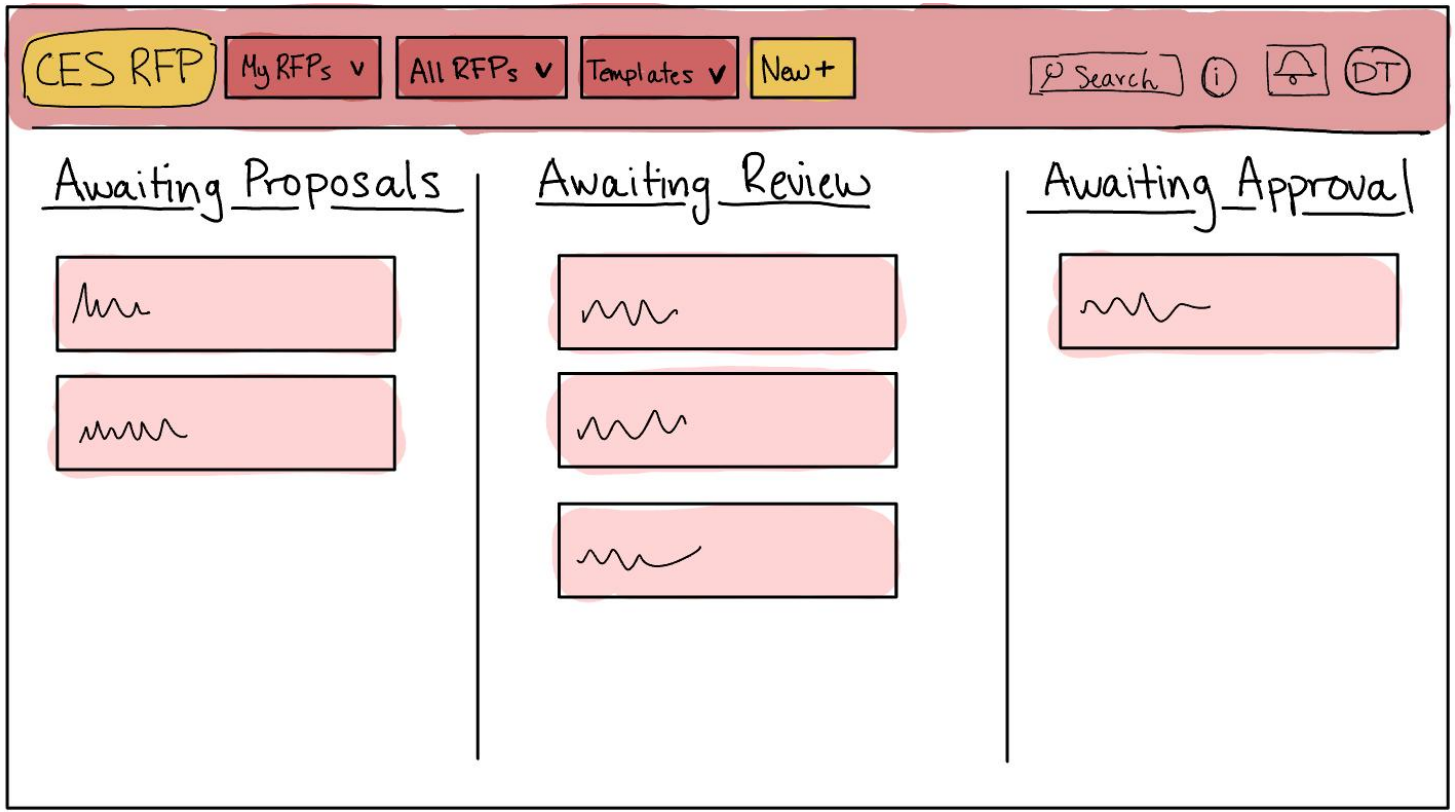
- Web app will help guide RFP process
- Automated emailing to vendors
- Autofill and suggested elements for specific RFP types



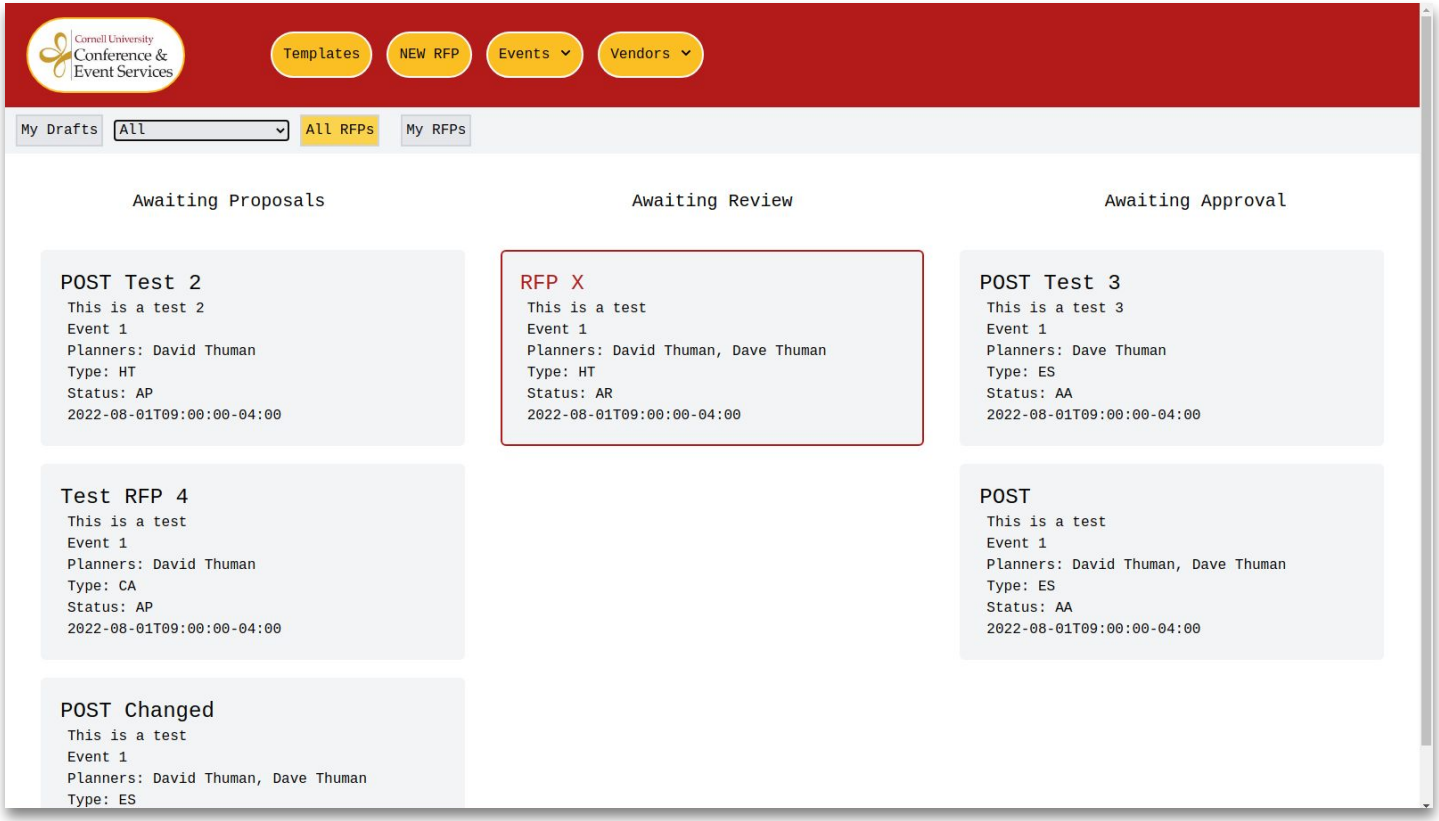
Simple Design Overview

Pages a planner may find within the application

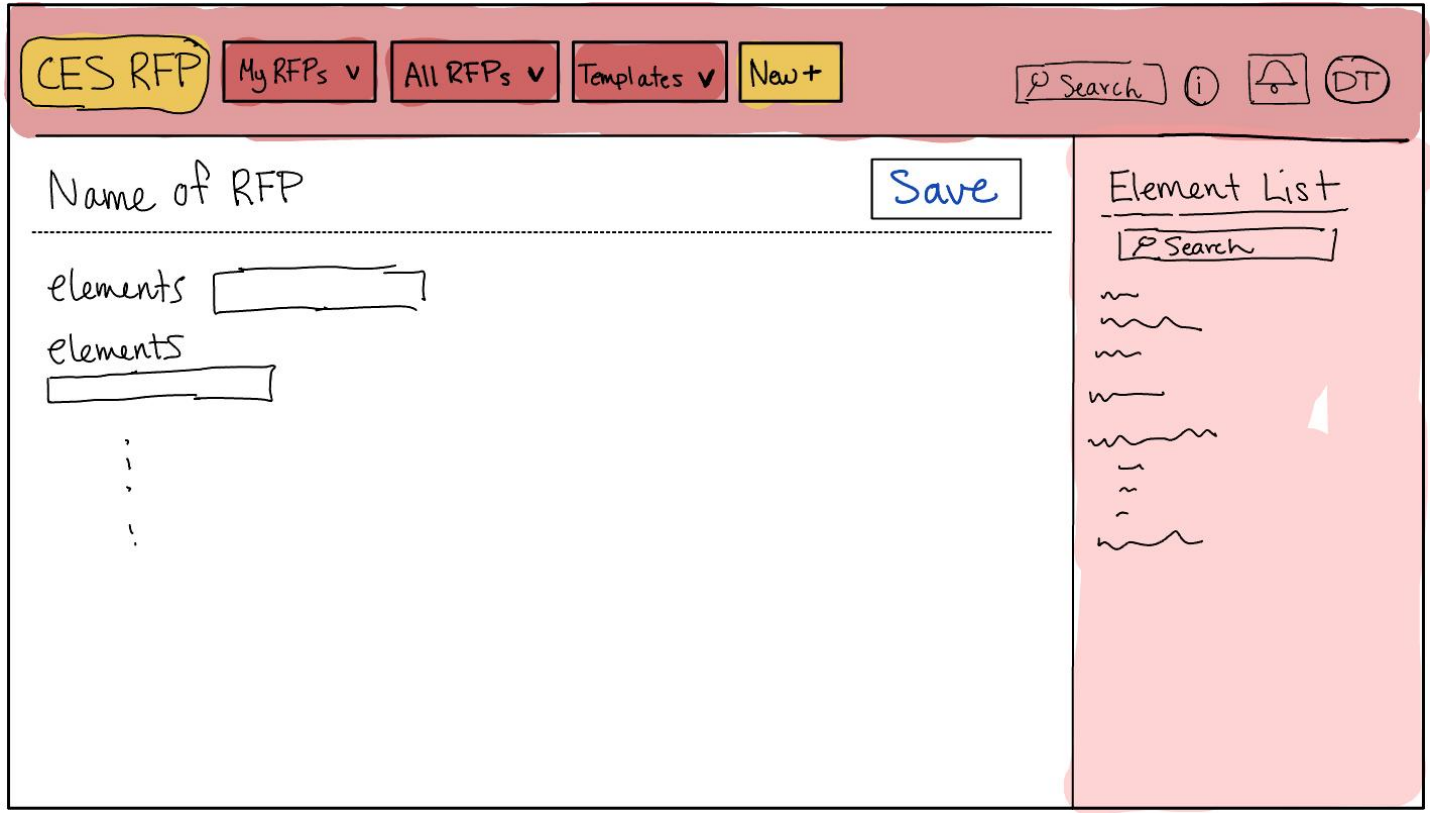
Home Page


CES RFP
My RFPs
All RFPs
Templates
New +
Search
DT
Awaiting Proposals
Awaiting Review
Awaiting Approval

Home Page


Cornell University
Conference & Event Services
Templates
NEW RFP
Events
Vendors
My Drafts
All
All RFPs
My RFPs
Awaiting Proposals
Awaiting Review
Awaiting Approval
POST Test 2
This is a test 2
Event 1
Planners: David Thuman
Type: HT
Status: AP
2022-08-01T09:00:00-04:00
RFP X
This is a test
Event 1
Planners: David Thuman, Dave Thuman
Type: HT
Status: AR
2022-08-01T09:00:00-04:00
POST Test 3
This is a test 3
Event 1
Planners: Dave Thuman
Type: ES
Status: AA
2022-08-01T09:00:00-04:00
Test RFP 4
This is a test
Event 1
Planners: David Thuman
Type: CA
Status: AP
2022-08-01T09:00:00-04:00
POST
This is a test
Event 1
Planners: David Thuman, Dave Thuman
Type: ES
Status: AA
2022-08-01T09:00:00-04:00
POST Changed
This is a test
Event 1
Planners: David Thuman, Dave Thuman
Type: ES

New RFP Page


CES RFP
My RFPs
All RFPs
Templates
New +
Search
DT
Name of RFP
Save
elements
elements
Element List
Search

New RFP Page

Cornell University Conference & Event Services

Templates | NEW RFP | Events | Vendors

Create RFP

SAVE

Title: Event X Catering

Event: Select an Event

Planners

- [ ] David Thuman
- [ ] Dave Thuman

Type: Select an RFP type

Status

- ○ Draft
- ○ Awaiting Proposals
- ○ Awaiting Review
- ○ Awaiting Approval

Deadline: YYYY-MM-DD-HH:MM

Description: Notes on RFP

Catering: STR

Housing: STR

Select a Detail

Add a Detail

Search for detail

Minors
- [ ]

Catering
- [x]

Total Cost
- [ ]

Housing
- [x]

Cancelled
- [ ]

Test
- [ ]

Code Base Maintenance

Maintenance Level: **Medium**

- Web app has a singular use (track RFPs) so feature upgrades only come at the planner's requests.
- Smaller web app will contain less bugs, causing less updates
- Documentation and build architecture are present

Pros

- One-stop shop for tracking the lifespan of an RFP
- Easy collaboration between planners
- Planners can ask for custom features and we can deliver quickly

Cons

- Medium-scale project requires more testing and maintenance
- Need a server to host web app

Progress

- Can run a Docker Compose file to build a connect frontend, backend, and database
- Strong base for the frontend, backend, and database
- More viewing and editing features need to be created in the frontend

Roadblocks

- No real technical roadblocks, just need more time to build
- Planner input to guide the features that are needed

Technology Needs

In the simplest fashion, a virtual machine to run Docker containers to host frontend, backend, and database.

If more separation is wanted, AWS provides an array of products to:

- Host the database
- Host our backend API
- Create a web server for the frontend

CUWebLogin

- Secure login page for planners

Alternative Solutions

Enterprise-level Software

- Visit Ithaca uses Simple View
- Sales Force

StarRez

- Has a database, but would lack all preferred functionality wanted by planners