Match

An application to match a person in need to a volunteer

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Introduction

The aim of this application is to connect the people in need to volunteers from NGOs.

We have come up with an application - *Match* to address this. *Match* behaves as a native mobile app, and can be accessed as a web app too. Currently it is hosted on Heroku.

Features of the application

- Through the **NGO**, the people in need can **sign up** with the application. The NGO can **login** on behalf of the needy person to **post their request** (referred to as 'opportunity' in some places in the document and video).
- The NGO can view all open requests posted through it.
- Once a request is posted, the **application matches** they type of request with the volunteers, and sends out a notification in the form of email and SMS to the matched volunteers informing them that such an opportunity is available. The matching engine is explained in the next section.
- The **volunteers** can also login to the application to **view the different opportunities** available with different NGOs. They are shown the **NGO rating** (up to 5 stars) to help them make an informed choice about the NGO they want to offer their service to.
- Also, the NGO can look at some **analytics** through the application. For example, the NGO can view how many volunteers were students, how many were from corporate and how many were from the community, over different months; this is visualized as bar charts over different months.

Matching Engine

Every request may not be suitable for every volunteer; that is where the matching engine comes in. It matches the request to the volunteers who may be suitable for doing it, and informs only those volunteers through an email and an SMS.

The matching engine has the following features:

- The calendars of the volunteers will be integrated with the app. The calendars of the volunteers
 will be first checked to see if their calendar is free for the time when the opportunity is available.
 The first level of filtering the volunteers happens through this. The matching engine picks only
 those volunteers whose calendars are free, and the goes to the next step.
- In the next step, a tag matching is done between the opportunity posted, and the tags associated with the volunteer. Tags are associated with the volunteer based on the description he gives about himself during sign-up, the previous requests he has accepted and worked on etc. This tag matching comes up with a list of volunteers based on the percentage of matching, and the notification about the opportunity is sent only to these volunteers, through an email and an SMS.

Benefits

- Volunteers can look at all the opportunities posted, or can only choose to look at what the matching engine throws up for them.
- The matching engine helps to ensure that only the right set of volunteers are informed about a particular opportunity, thus ensuring that a better job can be done.
- The app can be used in any device with any form factor.

Technologies used

- HTML 5, CSS Ionic Framework
- Angular JS
- Parse platform for the backend
- MongoDB; and Java's Restful API for the web services
- Cloud Platform Heroku

Further Work to Be Done

The work to be done in the future includes a geo-fencing system, where, if there are any urgent requests (like a request for blood), the notification should go out to all the volunteers who are within a certain radius from the location where the request was raised. This ensures that urgent requests, like requests for blood, can be addressed as soon as possible by people who are close to the location.

Screenshots























