

System Design Document

GiveNet

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University of Toronto - Mississauga

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CRC CARDS

Class Name: User	
Parent Class (If any): None Subclassess (if any): Donor, Charitable Organisation, Personal Donor	
Responsibilities: <ul style="list-style-type: none"> - Know your AccID - Sign up - Log in - Log out - Delete account - Change Profile Data (Name, Location, Address etc.) - Search up what C.O want by item 	Collaborators: <ul style="list-style-type: none"> - Wanted items - Donor - Charitable Organisation

Class Name: Donor	
Parent Class (If any): User Subclassess (if any):	
Responsibilities: <ul style="list-style-type: none"> - View total contributions - Add/remove available items (listings) - Accept pickups 	Collaborators: <ul style="list-style-type: none"> - Charitable Organisation

Class Name: Charitable Organisation	
Parent Class (If any): Charitable Organisation Subclassess (if any):	
Responsibilities: <ul style="list-style-type: none"> - Update wanted items - Claim listings as a shopping cart experience - Schedule Pickup times for listings 	Collaborators: <ul style="list-style-type: none"> - Donor - User

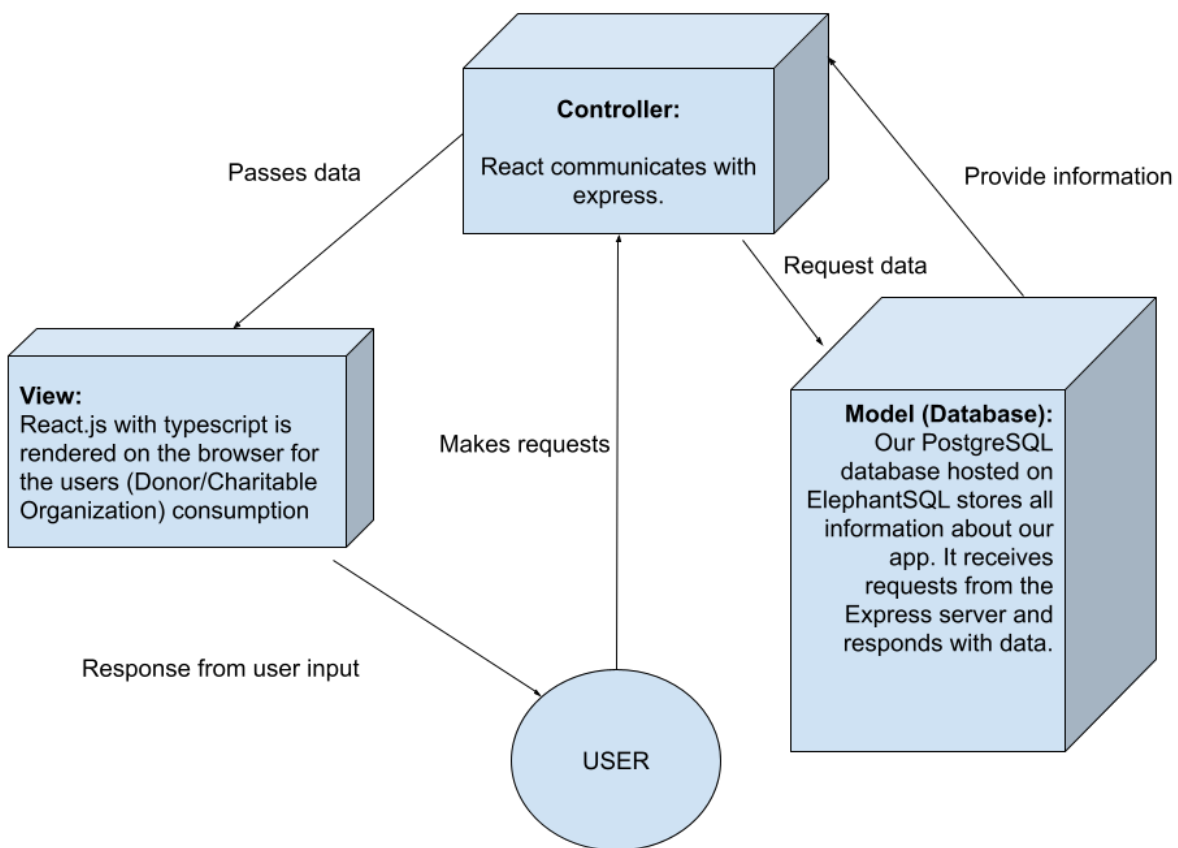
Class Name: Admin	
Parent Class (If any): User Subclassess (if any):	
Responsibilities: <ul style="list-style-type: none"> - Handle registration of Donors / donation centres 	Collaborators: <ul style="list-style-type: none"> - Donor - Charitable Organisation

Class Name: Listing	
Parent Class (If any): Subclassess (if any):	
Responsibilities: <ul style="list-style-type: none"> - Knows what items are in the order with respective expiry dates - Knows the weight of each item/total weight of donation - Knows the expiry date of each item - Knows the container type of each item - Knows the location of the overall listing 	Collaborators: <ul style="list-style-type: none"> - Charitable Organisation - Donor

Class Name: Pickup	
Parent Class (If any): Subclassess (if any):	
Responsibilities: <ul style="list-style-type: none"> - Knows where the location for pick up is - Knows the pick up time - Knows the weight of the items - Knows what vehicles are required to pick up - Knows whos picking it up - Knows if the transaction already occurred - Knows whos picking it up and who is giving the item 	Collaborators: <ul style="list-style-type: none"> - Charitable Organisation - Donor

Class Name: Item	
Parent Class (If any): Subclassess (if any): ItemGroup	
Responsibilities: <ul style="list-style-type: none"> - Knows it name - Knows its food group 	Collaborators: <ul style="list-style-type: none"> - Donor - Charitable Organisation

Software Architecture:



Database Design:

- ***all tables have createdAt and updatedAt <date> fields**
-
- Generic account user with their username and password.

Account				
Tuple	acc_id	username	password	type
Type	Int	String	String	Int {0: admin, 1: donor, 2: charity}

-
- Generic account details for users of any type.

AccountDetails						
Tuple	<u>acc_id</u>	name	location	operating_hours	phone	email
Type	Int	string	string	string	string	string

-
- Predefined tags for items with name *name*. All categories are tags but not all tags are categories

Tag			
Tuple	tag_id	name	<u>FK: category</u>
Type	Int	Int	Int

-
- A generic listing at a location requiring some container size. Find items in the listing from Item table

Listing					
Tuple	listing_id	<u>FK: acc_id</u>	container	location	notes
Type	Int	Int	String	String	String

-
- An item in this table belongs to some listing in Listing. It must have a tag, name, weight and expiry.

Item						
Tuple	item_id	<u>FK: listing_id</u>	<u>FK: tag_id</u>	name	weight	expiry
Type	Int	Int	Int	string	int	date

-

- A listing is this table if it has been claimed by a charitable organization.

Pickup									
Tuple	pickup_id	listing_id	donor_id	acc_id	time	completed	notes	<u><i>FK: listing_id</i></u>	<u><i>FK: acc_id</i></u>
Type	Int	int	int	int	DATE	bool	String	int	int

-
- A category is an overlying collection of similar tags like a “vegetable”.

Category			
Tuple	category_id	desc	name
Type	Int	string	string

-
- What tags a charitable organization wants

CharityWants		
Tuple	acc_id	FK: tag_id
Type	Int	DATE

-
- What tags a charitable organization wants, what a donor usually gives.

DonorHas		
Tuple	acc_id	FK: tag_id
Type	Int	DATE

-
- The social media

SocialMedia					
Tuple	<u><i>acc_id</i></u>	website	twitter	instagram	facebook
Type	Int	string	string	string	string

ERD Diagram

