

Back End Engineer – Interview Task

Promo System

Brief

You are required to design a promo system in which users are assigned various promos and can use the promo points in a specific task of their choosing.

Actors

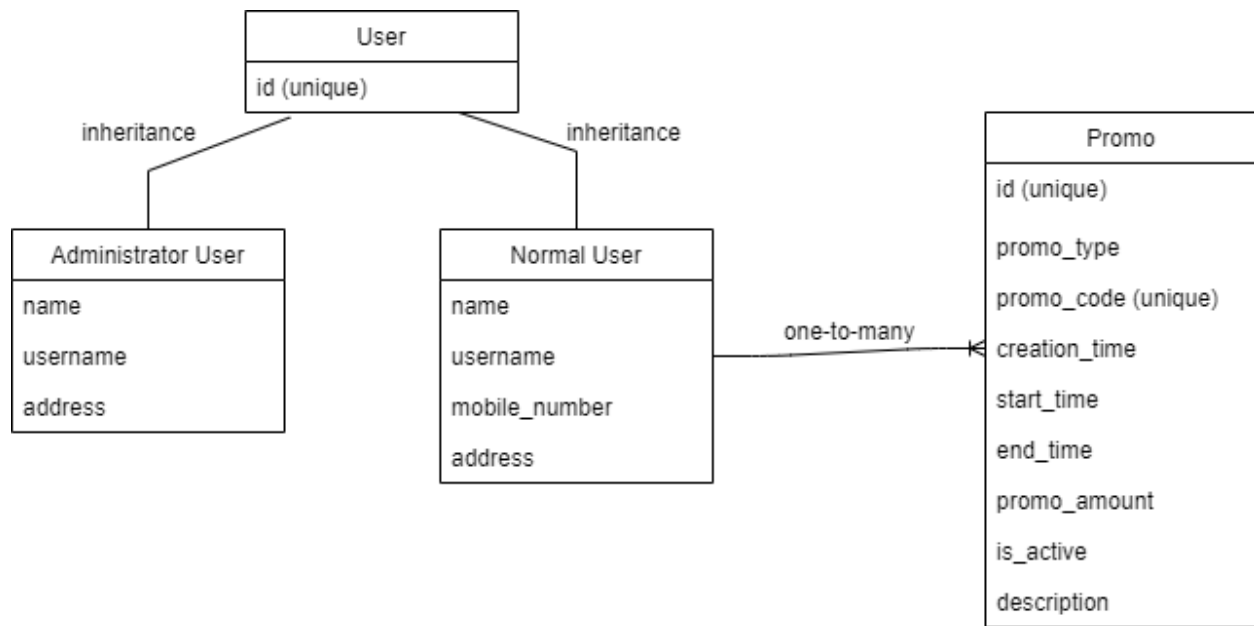
Administrator User – System user, they can access and use all the available APIs. They can create, modify, and delete promos from other Normal Users. They are NOT allowed to have promos.

Normal User – This is a user that has a list of promos that they can use. They are able to only get the list of their own promos, and use the points.

Promo – A promo is simply a gift object. It contains a set amount of promo points that can be used by the users.

Entity Relation Diagram

This is an ERD specifying the minimum attributes per the models of the system. If you wish, you can extend the models or create additional relationships as you see fit, as long as the below ERD is fulfilled.



APIs Required

You are required to design the following APIs:

- **Create_promo**
 - allows admin user to create a promo to a normal user
- **Modify_promo**
 - allows admin user to modify a promo that already exists
- **Delete_promo**
 - allows admin user to delete a promo that already exists
- **Get_promo_list_all_users**
 - allows admin user to retrieve a list of all promos that exist
- **Get_promo_list_me**
 - allows normal user to retrieve a list of their promos
- **Get_promo_points**
 - allows normal user to get the remaining points from a particular promo
- **Use_promo_points**
 - allows normal users to deduct some of the points from one of their promos

API Rules

1. All APIs should be built using Django and Django Rest Framework (DRF).
2. All APIs should be JSON-based RESTful APIs.
3. All APIs should be authenticated properly.
4. All APIs should be unit-tested.
5. All APIs should be reasonably documented in-code.

Important Notes

1. You can modify or add to the structure of the database models as you see fit, as long as the main functionalities are not affected.
2. You can use whatever relational database you want.
3. There is no “right way” to fulfill the requirements. The freedom is given to you to make some of the decisions to allow for your problem-solving skills to show.