Custom User, Profile & Notifications

There's a lot to cover here, first we will start with creating our custom user model, then create a user profile and assign it to every user. Finally, we look at 'messages' framework so that we can create custom notifications.

Custom User

We create a custom user by extending 'AbstractUser' as seen in the earlier sections.

User Model -

```python
class MyUser(AbstractUser):
    # Change pk to a unique user ID (UUID)
    uuid = models.UUIDField(primary_key=True, default=uuid.uuid4,
editable=False)
    email = models.EmailField(max_length=255, unique=True)
```

Notice - We change the primary key to a UUID

Profile Model -

```python
class Profile(models.Model):
    # One to one relationship with User
    user = models.OneToOneField(MyUser, on_delete=models.CASCADE)
    # Custom fields
    age = models.PositiveIntegerField(blank=True, null=True)
    # To create and save profile we will use 'signals'
    # check 'signals.py' and 'apps.py' for further reference

    def __str__(self):
        return f"{self.user.username}'s profile"
```

We then create our views, templates & urls to complete the user signup process.

Message Framework

A lot of time applications have to send notifications to the user, it is so common that Django ships with a built-in messaging framework.

We implement the messages framework in our views.