Assignment 3

```
class Account:
    """
    Represents a user account with a username and password.
    """

    def __init__(self, username, password):
        # Initialize account with username and password
        self.username = username
        self.__password = password

    def set_username(self, username):
        # Set a new username
        self.username = username

    def set_password(self, password):
        # Set a new password
        self.__password = password

    def get_username(self):
        # Return the username
        return self.username
```

```
class Command:
    """
    Represents a command given to the bot.
    """

    def __init__(self, description, command_input):
        # Initialize command with description and input
        self.description = description
        self.input = command_input

    def get_description(self):
        # Return the command's description
        return self.description

    def get_input(self):
        # Return the input for the command
        return self.input
```

```
class Notification:
    """
    Represents a notification sent to the user.
    """

    def __init__(self, notif_type, content, timestamp):
        # Initialize notification with type, content, and timestamp
        self.type = notif_type
        self.content = content
        self.timestamp = timestamp

    def get_type(self):
        # Return the type of the notification
        return self.type

    def get_content(self):
        # Return the notification content
        return self.content

    def get_timestamp(self):
        # Return when the notification was sent
        return self.timestamp
```

```
class Product:
    """
    Represents a product to track.
    """

    def __init__(self, name, url, options=None):
        # Initialize the product with a name, URL, and options (like size, color)
        self.name = name
        self.url = url
        self.options = options if options is not None else {}

    def set_url(self, url):
        # Update the product's URL
        self.url = url

    def get_name(self):
        # Return the product's name
        return self.name

    def get_options(self):
        # Return the options (like size, color)
        return self.options

    def fetch_product_details(self):
        # This would fetch product details, like price, from the web
        details = {
            'price': 'To be fetched',  # Placeholder
            'availability': 'To be checked'
        }
        return details
```

```
class User:
    """
    Represents a user of the system.
    """

    def __init__(self, user_id, email):
        # Initialize user with id and email
        self.__user_id = user_id
        self.email = email

    def get_user_id(self):
        # Return the user's ID
        return self.__user_id

    def get_email(self):
        # Return the user's email
        return self.email
```

Oguz Kaan Yildirim