Event Registration System REST API

Models

- Create three models: `Event`, `Person`, and `Participantship`.
- The `Event` model will represent events with fields for title, description, date, time, and location.
- The `Person` model will represent individuals with fields for name, email, and phone number.
- Set up a ManyToMany relationship between the `Event` and `Person` models using the `Participantship` model as an intermediary table.

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Serializers

- Implement serializers for the `Event`, `Person`, and `Participantship` models to handle data interaction via the API.
- Allow creating events and persons separately through their respective API endpoints.
- Ensure that when retrieving events or persons, the API response includes nested serializers to display the participants' full details rather than just their IDs.
- Add read-only fields in both `Person` and `Event` serializers to display a list of registered events for a person and a list of participants for an event.

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Views (GenericViews, Mixins, and ViewSets)

- Utilize Django REST Framework's GenericViews, mixins, and viewsets to create API endpoints for events and persons.
- Implement views to perform CRUD operations on events and persons.
- Create custom actions using the `@action` decorator to handle participant registrations and unregistrations.
- When using the custom actions, ensure that participants can be registered for specific events or unregistered from events.

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Advanced Filtering (Optional)

- Enhance the API by adding advanced filtering capabilities for events and persons.
- Use the `django-filter` package to enable powerful filtering options based on event criteria, such as location, date range, and participant count.
- Implement query parameters to handle different filter combinations effectively.

Pagination (Optional)

- Add pagination to the list views for events and persons to limit the number of results displayed per page.
- Utilize Django REST Framework's pagination classes to achieve this.