**Relational Algebra**

1. **Use Case:** Register for an account in fears away

Relational algebra is not possible for this use case as there is no register operation.

1. **Use Case:** View alerts sent

Πname,twitter\_handle(σincident\_id is not null and twitter\_handle = “@smith” (incident))

1. **Use Case:** View news

Πname,twitter\_handle(σnews\_id is not null and twitter\_handle = “@smith” (news))

1. **Use Case:** View the incidents happened on a particular date.

σ{incident\_date = “2022/11/08”} (Incidents)

1. **Use Case:** View the incidents happened during a particular time slot

σ{incident\_time = 16:00:00 ∩ incident\_duration = 2} (incidents)

1. **Use Case:** View the incidents happened in a location

σ (Location.street = “dorchester”)(Incidents⋈LocationIncident.location\_id=Location.location\_id )