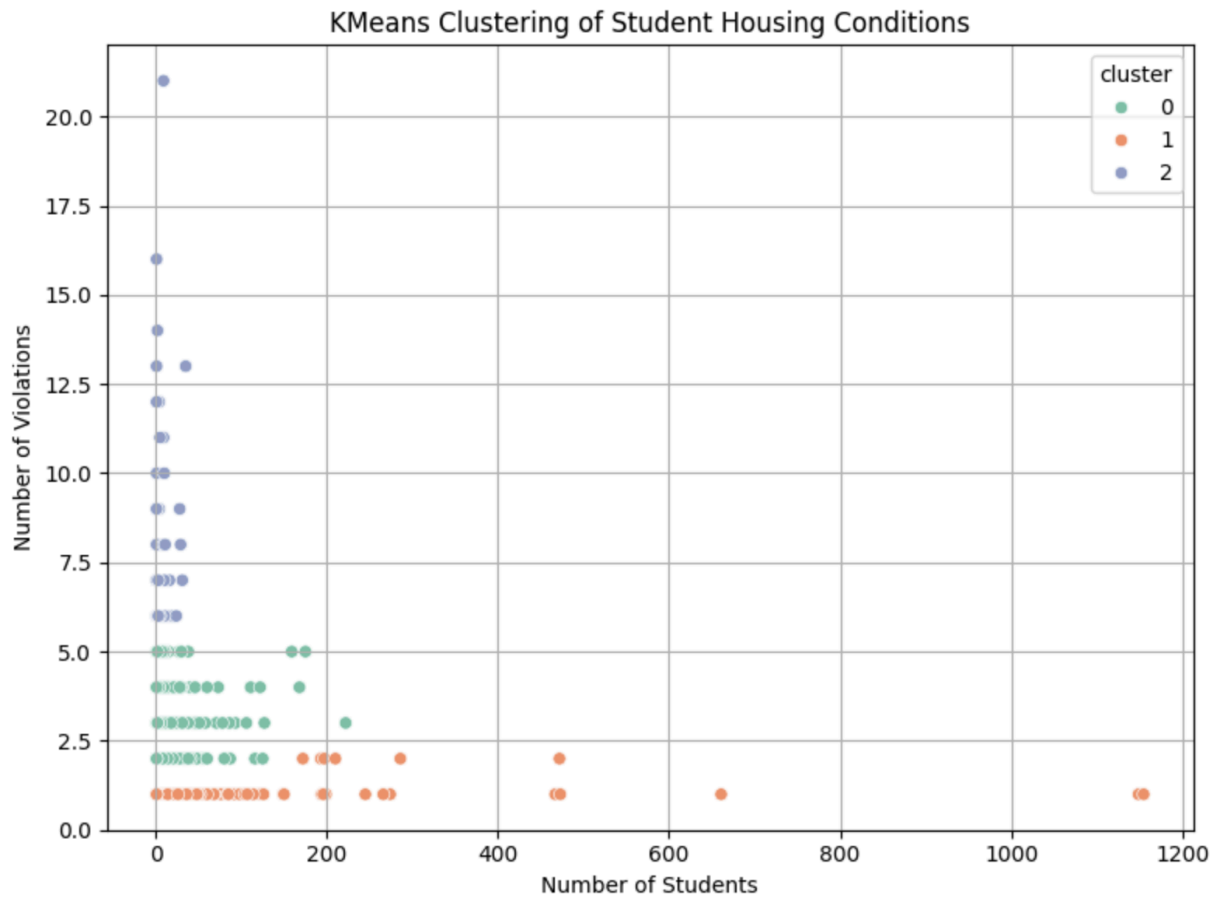


CS506 Final Project

Question 2

Rachel Du



Cluster Interpretations

- Cluster 0 (green) - Low to medium students, low violations
- Cluster 1 (orange) - High student density, low violations
- Cluster 2 (blue) - Low students, high violations

Clustering Summary

Cluster	Description	Common Traits	Possible Causes	Risks/Concerns	Policy/Research Implications
0	Represents typical student housing. These are low to moderately populated units with few reported violations.	<ul style="list-style-type: none"> - 1–200 students - 0–5 violations - Balanced distribution 	<ul style="list-style-type: none"> - Small multi-family homes - Well-managed apartments - Long-term landlords 	<ul style="list-style-type: none"> - Minimal, but could be underreporting - May hide latent issues 	<ul style="list-style-type: none"> - Use as a baseline or control group in analysis - Could serve as examples of successful management
1	High-density housing with very few violations. Appears efficient or under-monitored.	<ul style="list-style-type: none"> - 200+ students (some up to 1000+) - 0–3 violations - Very crowded 	<ul style="list-style-type: none"> - Dorm-style units or large apartment complexes - Professional property management - Lack of student complaint reporting 	<ul style="list-style-type: none"> - Risk of overcrowding - Fire safety, sanitation, or social stress not captured in violation count 	<ul style="list-style-type: none"> - Recommend targeted inspections for high-density units - Survey students about unreported issues
2	Low occupancy buildings with high violation counts. Indicates serious structural or legal issues.	<ul style="list-style-type: none"> - <50 students - 5–20+ violations - Unusual pattern 	<ul style="list-style-type: none"> - Neglected or old buildings - Poor landlord oversight - Possibly multi-use buildings or non-residential converted units 	<ul style="list-style-type: none"> - Unsafe living conditions - Students may not stay long or are at risk - Legal non-compliance 	<ul style="list-style-type: none"> - Flag for city inspection - Cross-check with landlord records - Recommend tenant protection policy interventions