

University Accommodation Dataset & AI Decision Framework

(Hybrid Policy Report + Student Guide Format)

1. Executive Summary

This report provides a comprehensive dataset and analytical framework for modelling student accommodation options at the University of Bristol. It integrates both on-campus and private rental data, enabling an AI system to recommend suitable housing based on student preferences such as budget, proximity to campus, facilities, and lifestyle priorities.

The document blends policy-oriented data structure with practical student guidance, ensuring it is simultaneously machine-readable and human-friendly.

2. Data Scope & Objectives

The dataset covers four primary accommodation types: On-campus university-managed halls (catered and self-catered) Postgraduate residences University-nominated private housing Independent private rentals The objective is to support AI-driven accommodation guidance by structuring consistent metadata for cost, facilities, accessibility, and proximity.

3. Data Model Overview

Each accommodation record contains structured attributes for AI processing and analysis: **residence_id**: Unique residence identifier (e.g., ACC-2025-CHUR-01) **name**: Hall or property name **type**: Catered, self-catered, private shared, studio, postgraduate, etc. **weekly_cost_gbp**: Weekly rental cost **facilities**: List of amenities **distance_to_campus_km**: Distance from main campus **accessibility_rating**: Scale of 1–5 **sustainability_features**: Energy efficiency, recycling options, etc. **target_students**: UG / PGT / PGR / International **availability_status**: open / waiting_list / closed **last_updated**: Date of record update

4. On-Campus Accommodation Dataset (Sample Records)

Residence ID	Name	Type	Weekly Cost (£)	Facilities	Distance (km)	Accessibility (1-5)
ACC-2025-HB-01	Hiatt Baker Hall	Self-Catered	£185	Gym, WiFi, Shared Kitchen	1.2	4
ACC-2025-CHUR-02	Churchill Hall	Catered	£210	Canteen, Library, Laundry	1.0	5
ACC-2025-GOL-03	Goldney Hall	Self-Catered	£195	Courtyard, Bike Storage, Common Room	0.8	4
ACC-2025-NOR-04	North Village	Postgraduate	£230	Private Ensuite, Study Lounge, Gym	2.1	5

5. Private Rental Dataset (Sample Records)

Property ID	Type	Monthly Rent (£)	Bills Incl.	Bedrooms	Distance (km)	Landlord Verified
PRV-2025-01	Shared House	£650	Yes	5	2.5	Yes
PRV-2025-02	Studio Apartment	£950	No	1	1.8	Yes
PRV-2025-03	Flatshare (3 bed)	£720	Yes	3	3.0	No
PRV-2025-04	University-Nominated Flat	£850	Yes	2	1.5	Yes

6. Comparative Cost & Facility Analysis

A comparison of average cost, facility richness, and satisfaction for on-campus vs. private rentals.

Type	Avg Weekly Cost (£)	Facility Rating (1–5)	Satisfaction (%)	Avg Travel Time (min)
On-Campus Halls	200	4.5	88	10
Private Rentals	180	3.8	82	25
University-Nominated Flats	190	4.2	86	15

7. AI Recommendation & Decision Framework

From the Researcher’s Perspective:

The AI employs a multi-criteria decision model integrating weighted variables — cost, distance, accessibility, and facility quality. It computes a composite 'Accommodation Suitability Score' to rank options.

From the AI’s Voice:

*“Based on your preferences for a budget under £200 per week, within 2km of the main campus, I recommend **Goldney Hall** or **Hiatt Baker Hall**. Both offer strong accessibility and on-site social spaces.”*

*“If you prefer a quieter environment and private living, you might consider a **Studio Apartment** near Clifton with verified landlords.”*

This dual logic ensures interpretability for both users and academic reviewers.

8. Accommodation Policies & Guidance (Summary)

Accommodation Guarantee: First-year undergraduates and new international postgraduates are guaranteed university accommodation if they apply by the published deadline. **Deposits & Payments:** Deposits are refundable upon inspection; monthly payment plans available for verified financial hardship cases. **Room Swaps:** Permitted within the first 6 weeks of term, subject to availability. **Early Move-In:** Possible for international arrivals; contact Accommodation Office in advance. **Accessibility Adjustments:** Rooms can be adapted with accessible showers, lowered counters, and visual alarm systems upon request.

9. Frequently Asked Questions

- **Q: Can I choose my flatmates?** A: Yes, where possible, students can request to be housed together during the application process.
- **Q: Are utility bills included?** A: Most on-campus halls include bills. Private rentals vary — check contract details.
- **Q: What if I miss the accommodation deadline?** A: You can apply for university-nominated housing or use the Private Housing Advice Team.
- **Q: Is there support for finding accessible housing?** A: Yes, contact the Accessibility Officer via accommodation-support@bristol-example.ac.uk.

10. Key Contacts (Fictional Directory)

Accommodation Office
■ accommodation-office@bristol-example.ac.uk
■ +44 117 900 1000
■ Senate House, 2 Tyndall Avenue

Private Housing Advice Team
■ privatehousing@bristol-example.ac.uk
■ +44 117 900 2000
■ Student Support Centre, Woodland Road

Accessibility & Inclusion Support

■ accommodation-support@bristol-example.ac.uk

■ +44 117 900 3000

11. Data Ethics & Privacy Considerations

All accommodation records are anonymised and fictional. Data used in AI training should exclude personal identifiers, and location information should be generalised to protect privacy. Ensure compliance with university data governance and UK GDPR standards when integrating real-world datasets.

12. Conclusion & Implementation Notes

This dataset provides a foundation for intelligent accommodation recommendation systems. By combining cost analysis, accessibility metrics, and preference learning, the AI can deliver equitable, personalised guidance for every student demographic. Future improvements may include sustainability scoring and integration with carbon footprint estimators.

Document version: 1.0 | Prepared for dissertation submission (prototype dataset).

Note: All information and contacts are fictional placeholders.