



University of Glasgow | School of
Computing Science

THE AWARDS
2020

UNIVERSITY
OF THE YEAR

MIMIC III – Descriptive Statistics

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WORLD
CHANGING
GLASGOW

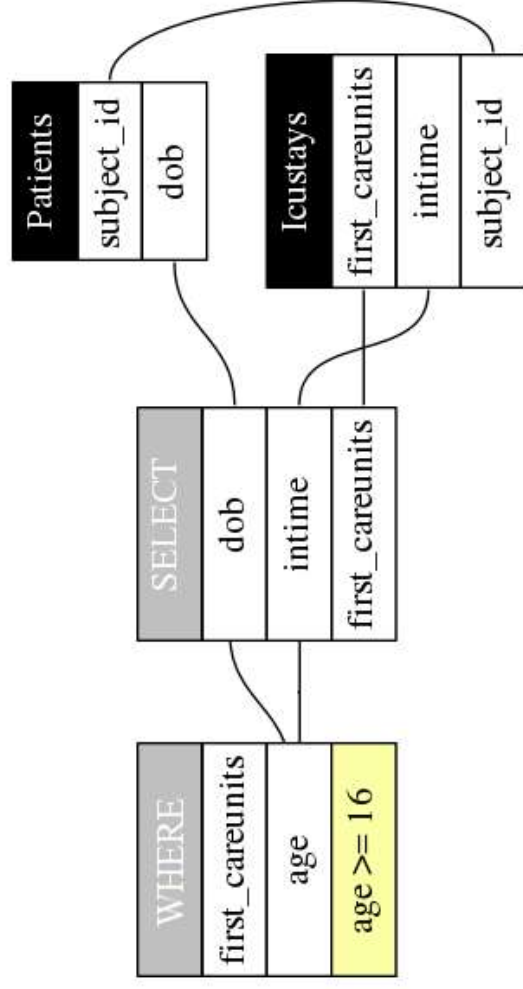


Descriptive Statistics in MIMIC III

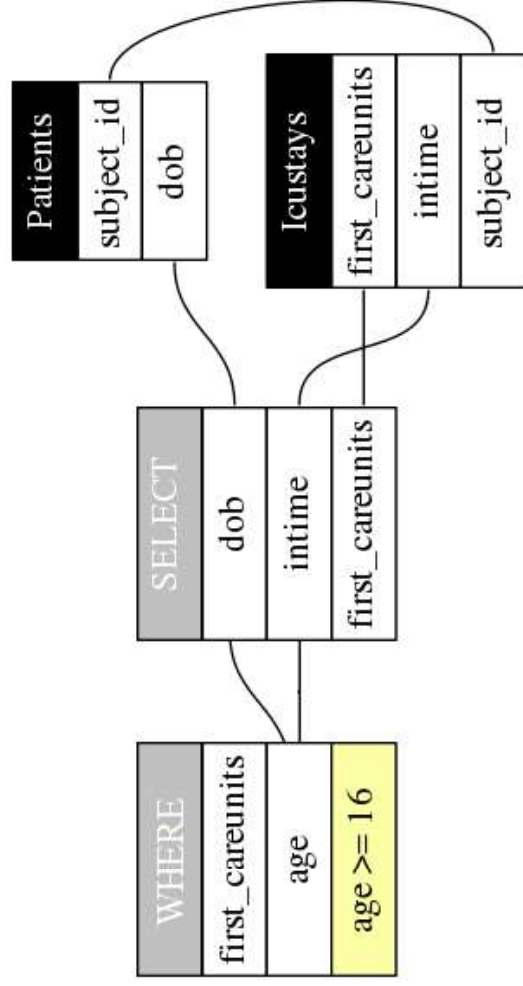
- Descriptive analysis of critical care units
- Patients characteristics
- Intensive care unit utilisation
- Patient Outcome - Mortality



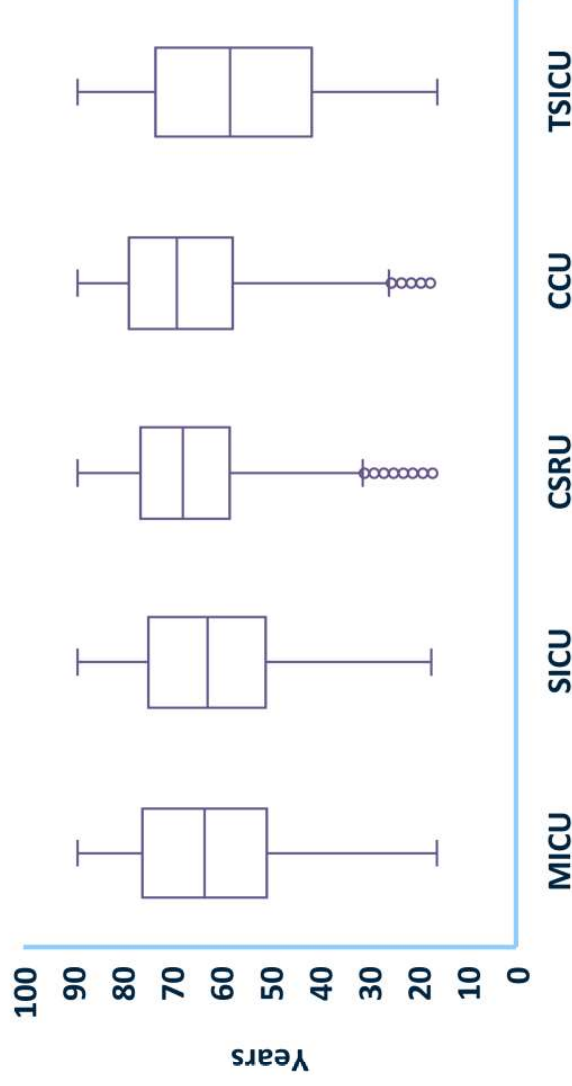
MIMIC-III: Age distribution per critical care



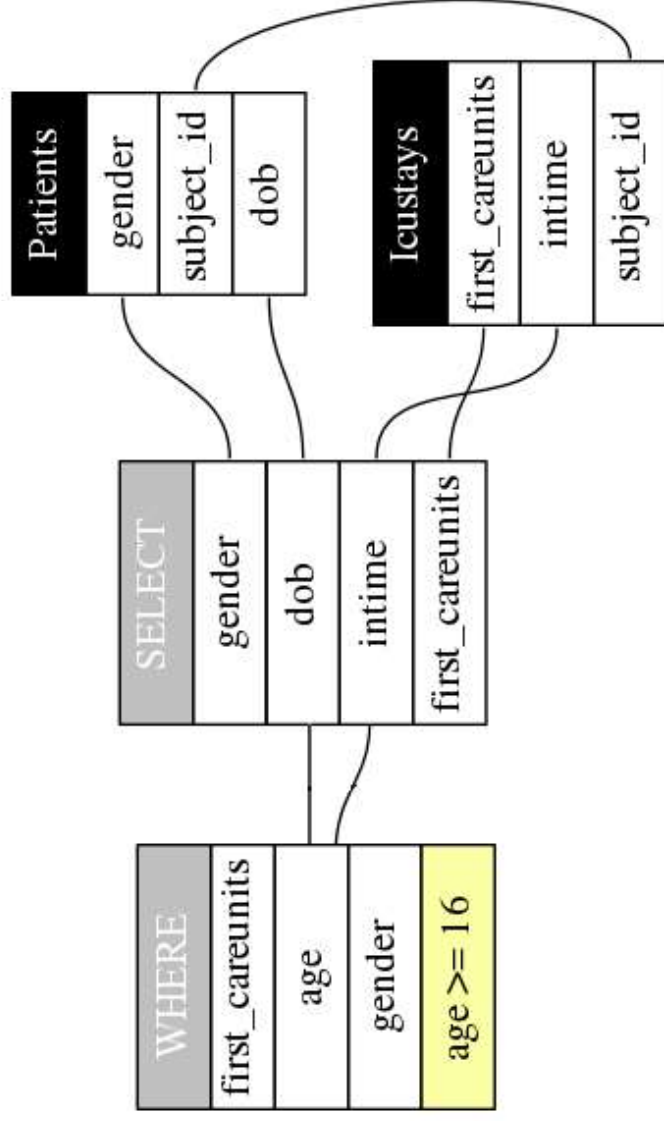
MIMIC-III: Age distribution per critical care



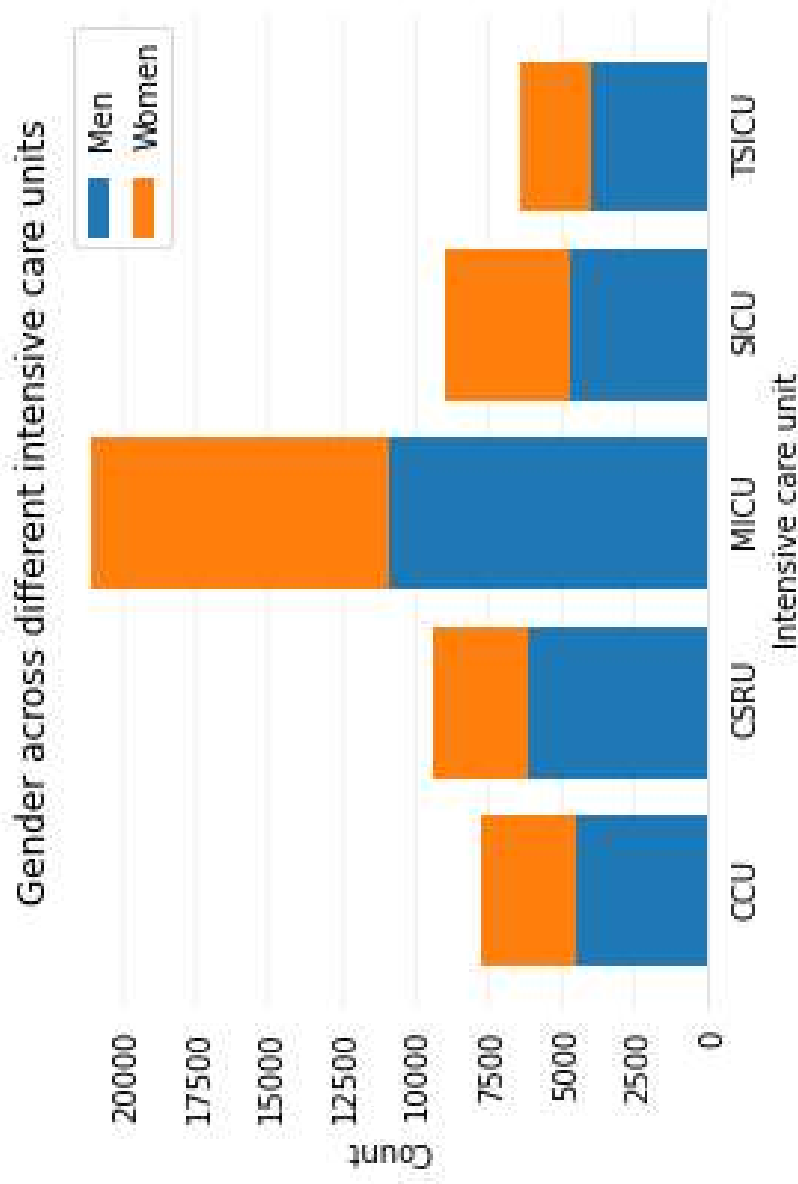
AGE DISTRIBUTION



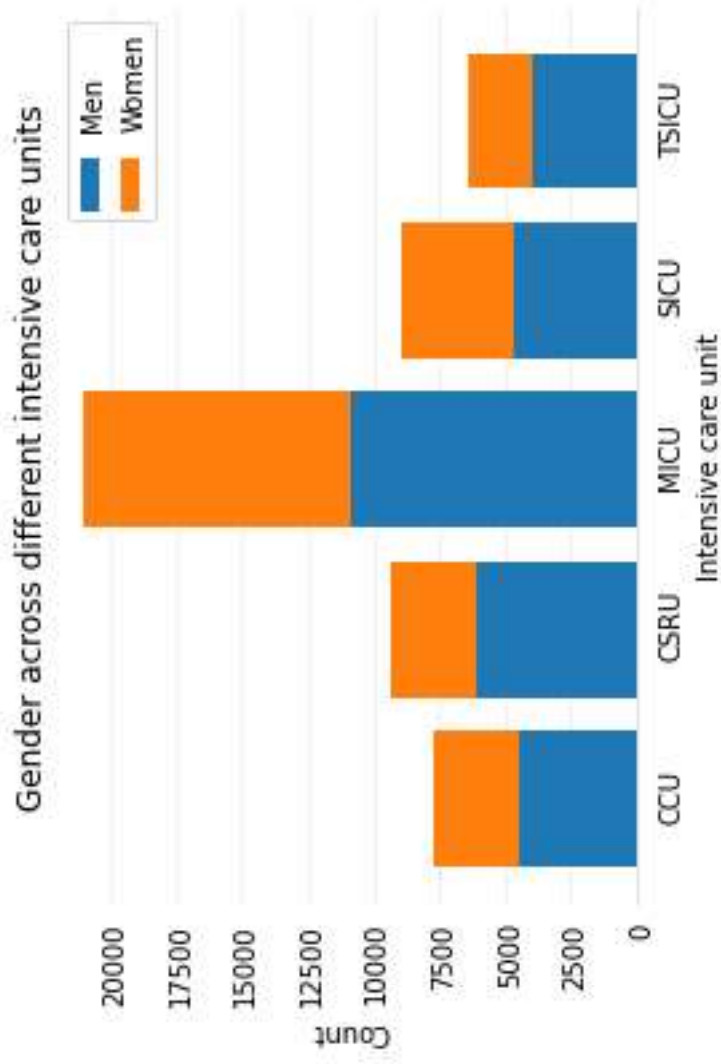
MIMIC-III: Gender per critical care unit



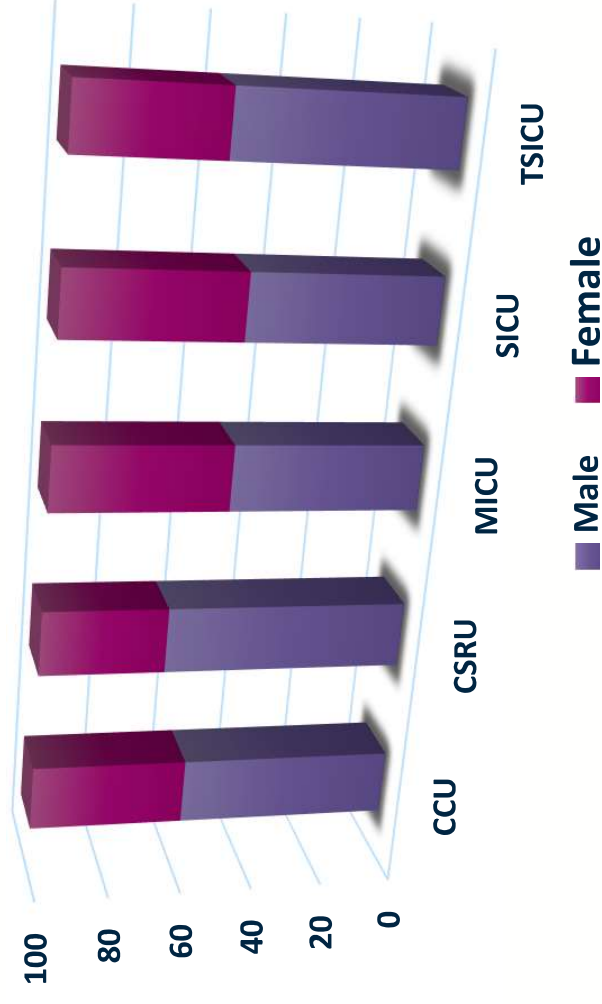
MIMIC-III: Gender per critical care unit



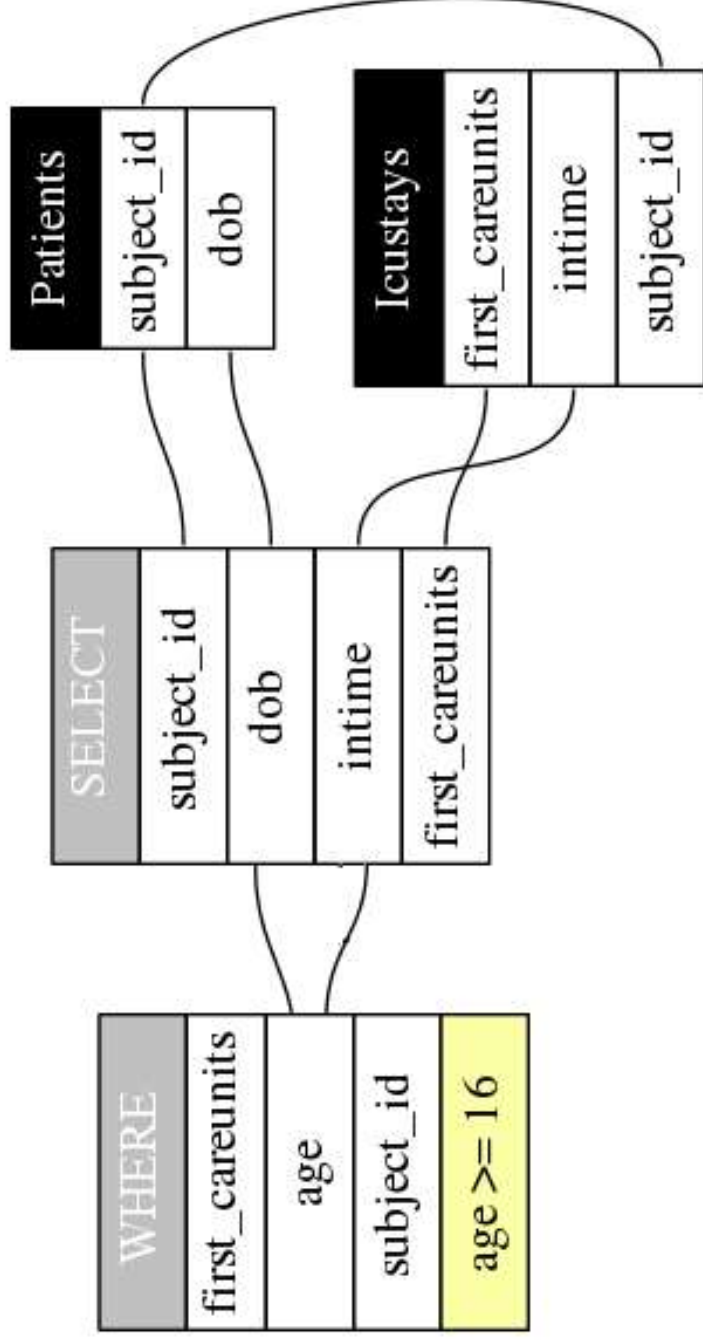
MIMIC-III: Gender per critical care unit



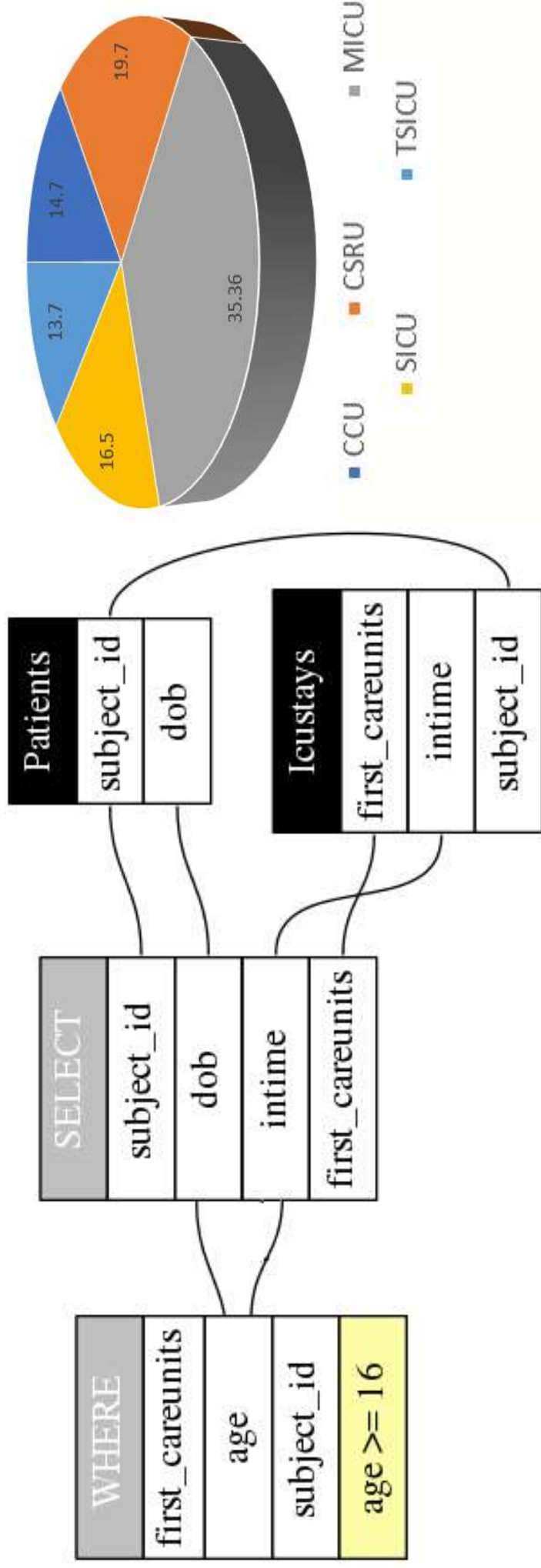
Gender per critical care unit



MIMIC-III: Distinct Patients' Hospitalisations



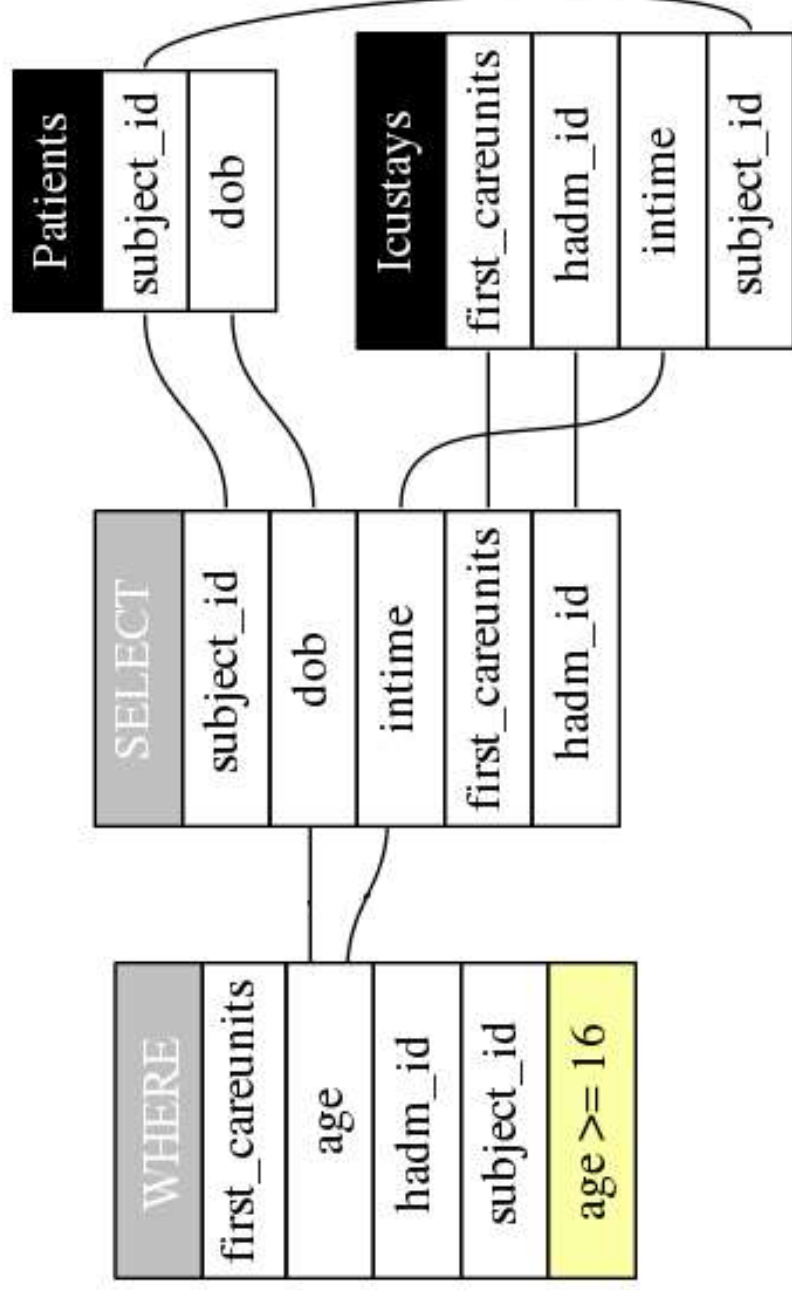
MIMIC-III: Distinct Patients' Hospitalisations



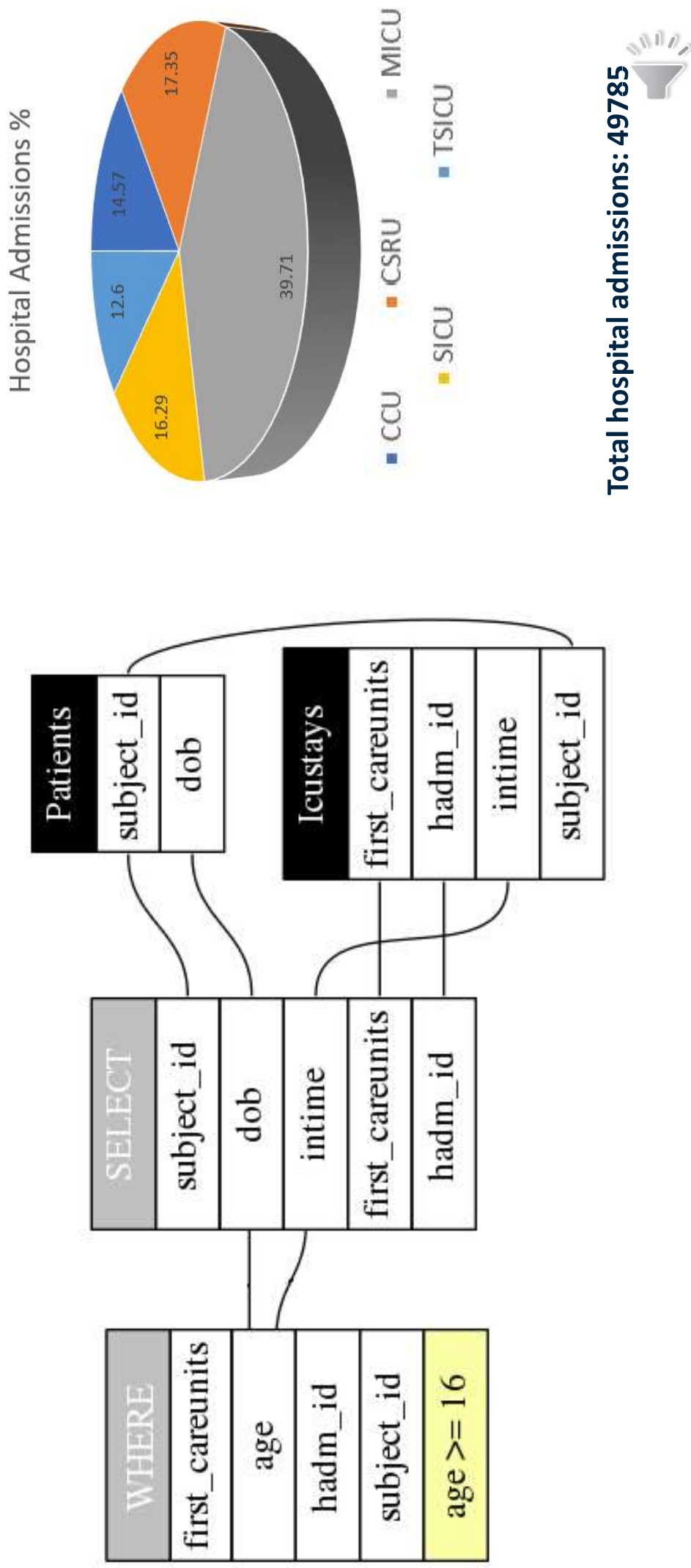
Total patients: 38597



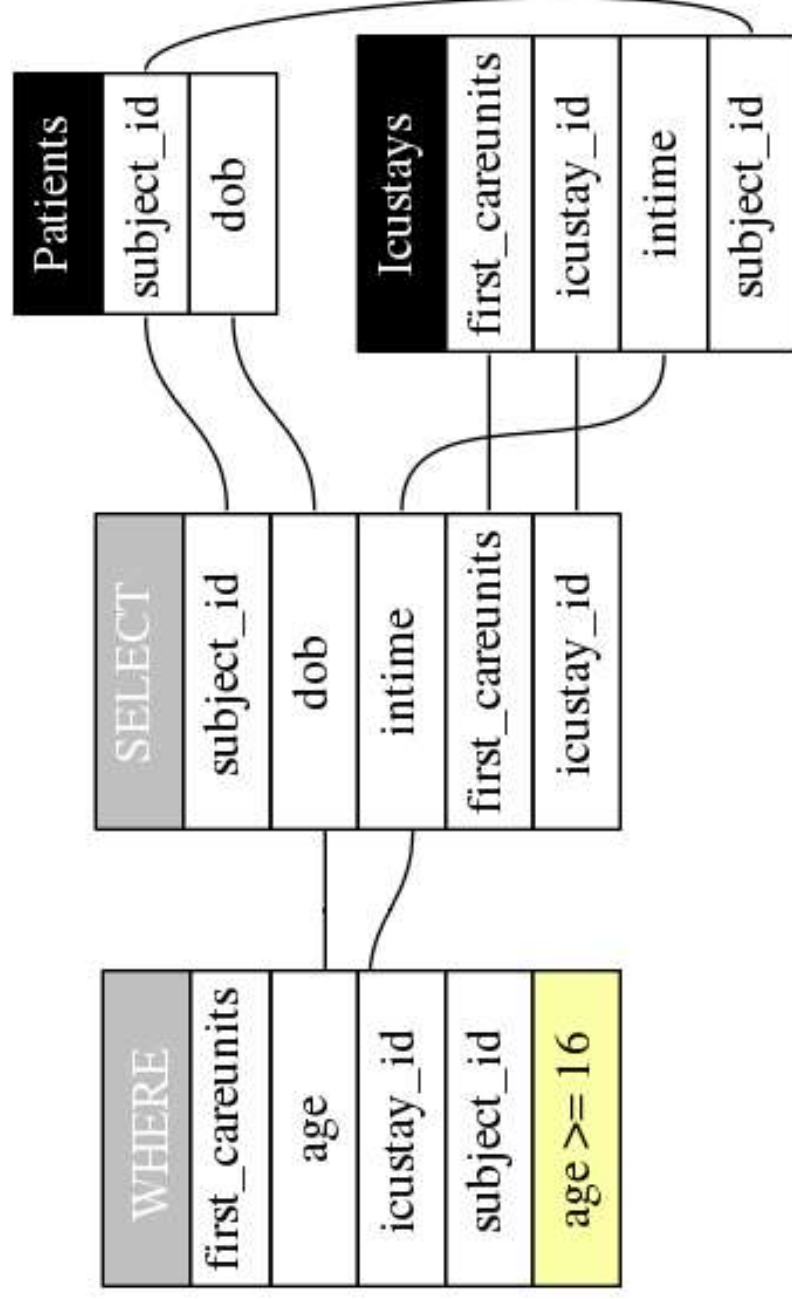
MIMIC-III: Hospital Admissions



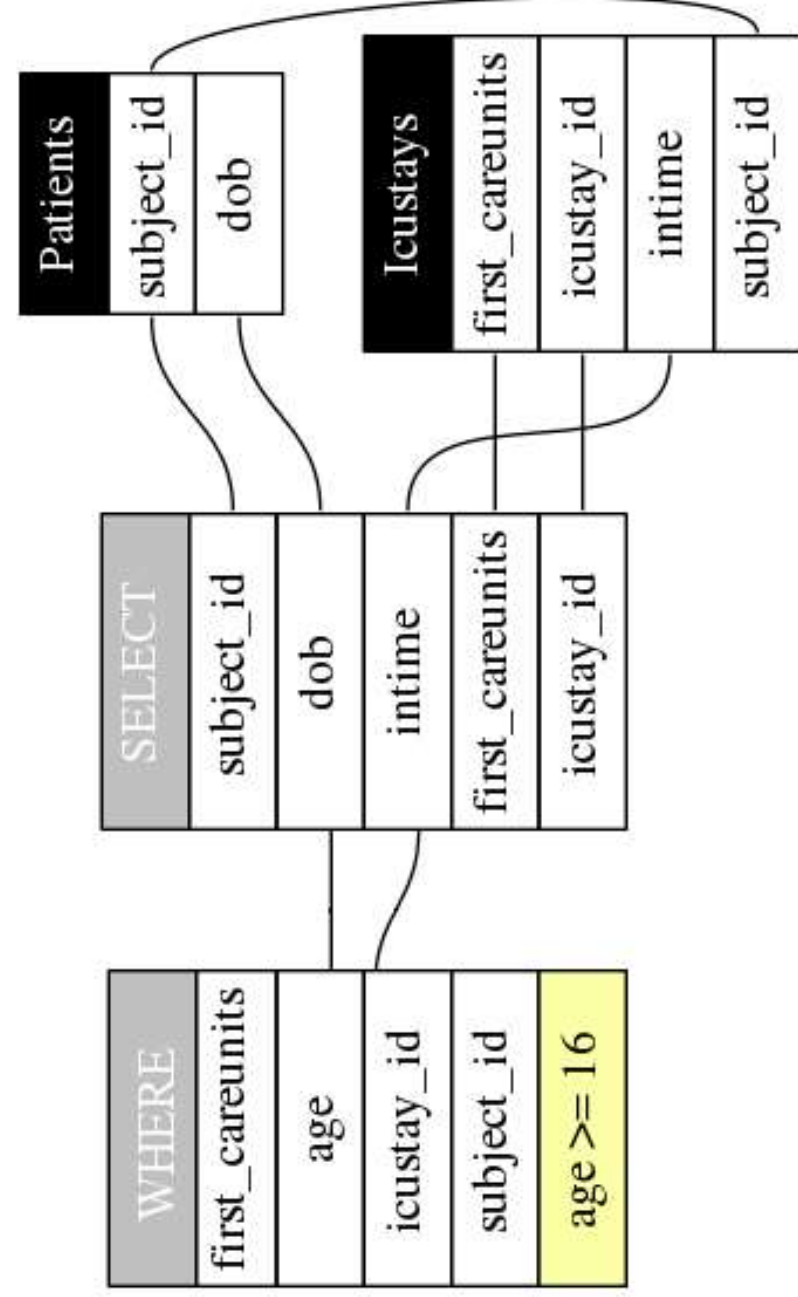
MIMIC-III: Hospital Admissions



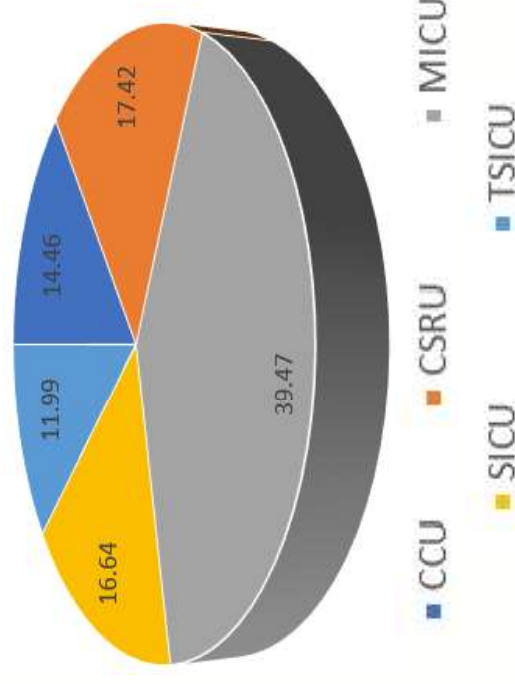
MIMIC-III: Distinct ICU Admissions



MIMIC-III: Distinct ICU Admissions



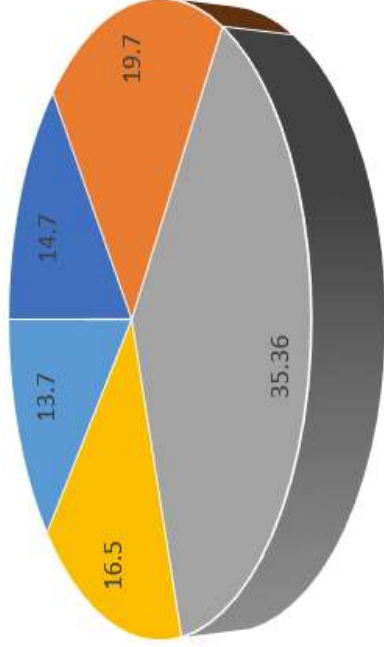
ICU stays %



Total ICU stays: 53423

MIMIC-III: Hospitalisations

Patients %



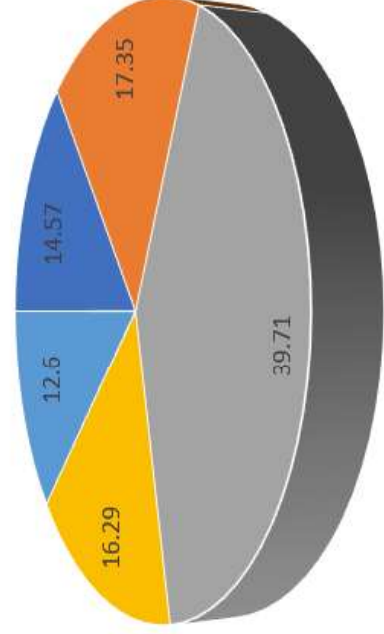
■ CCU

■ CSRU

■ MICU

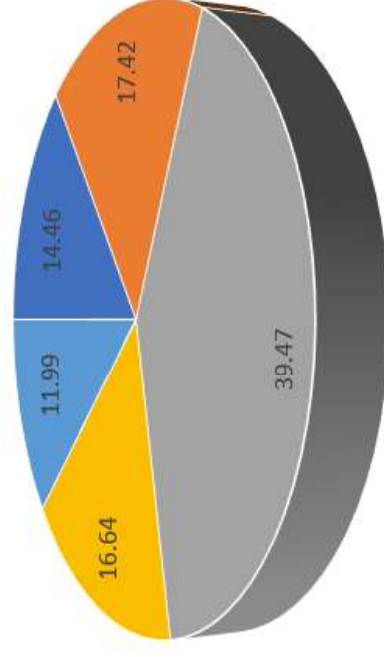
■ SICU

Hospital Admissions %



■ SICU

ICU stays %



■ TSICU

Total patients: 38597

Total hospital admissions: 49785

Total ICU stays: 53423



Summary

- Practical examples on how to extract and summarise key information
- Distinct patient admission vs hospitalisation vs unique admissions to ICUs
- Age distribution across units
- Gender distribution across units
- Intuitive visualisations



References

- Johnson et al. 'MIMIC-III, a freely accessible critical care database', Scientific Data, 2016.
- Gamal et al. 'Standardized electronic health record data modeling and persistence: A comparative review', Journal of Biomedical Informatics, 2020.