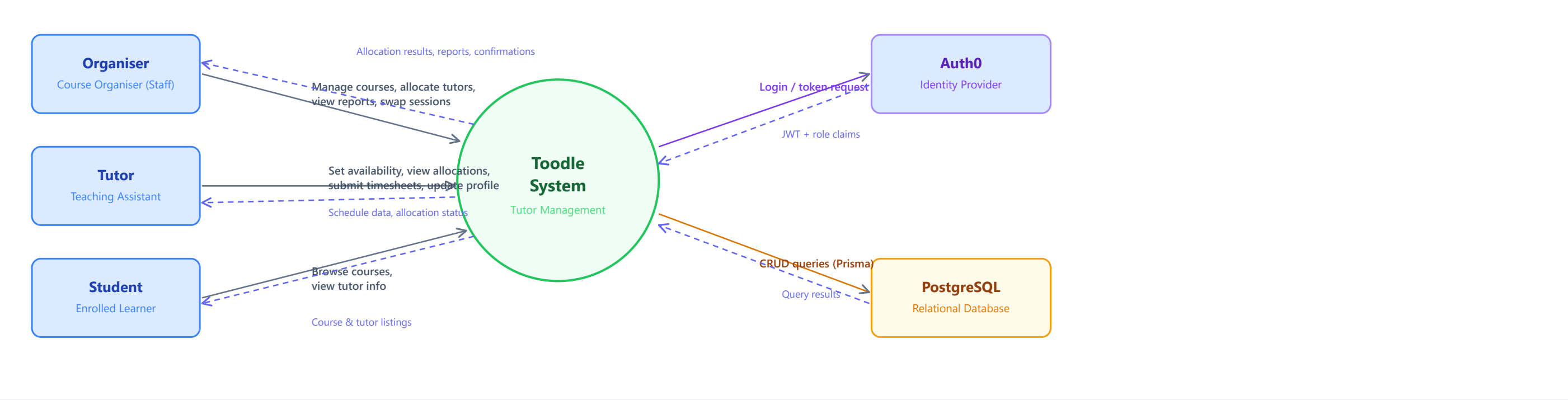


Toodle — Data Flow Diagram (DFD)

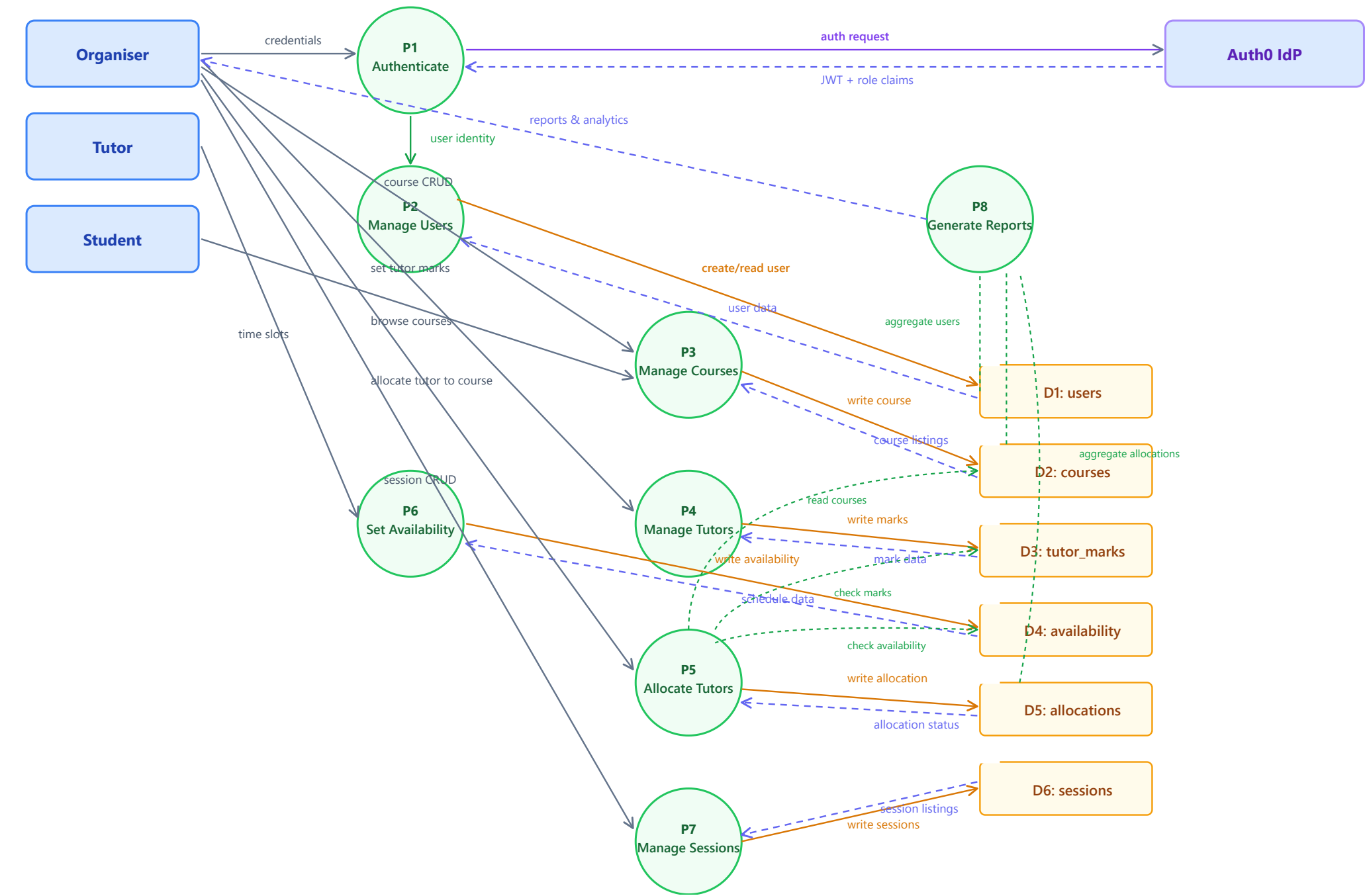
Tutor Management System · Level 0 Context & Level 1 Detailed Flows

External Entity Process Data Store Data Flow (sync) Data Flow (response)

LEVEL 0 — CONTEXT DIAGRAM



LEVEL 1 — DETAILED PROCESS FLOWS



Data Flow Summary

Flow	From	To	Data	Trigger
F1	Any User	P1 → Auth0	Credentials, auth request	Login redirect
F2	Auth0	P1 → P2	JWT with {audience}/roles claim	Successful auth
F3	P2	D1 (users)	User profile (auth0Id, email, role, name)	First login / sync
F4	Organiser	P3 → D2 (courses)	Course CRUD (code, name, year, semester, requiredTutors)	Course management
F5	Organiser	P4 → D3 (tutor_marks)	Tutor mark (userId, courseId, mark 0–100)	Tutor qualification
F6	Tutor	P6 → D4 (availability)	Time slots (dayOfWeek, startTime, endTime)	Availability update
F7	Organiser	P5 → D5 (allocations)	Allocation (userId, courseId, hoursPerWeek, status)	Tutor allocation

Flow	From	To	Data	Trigger
F8	P5	D2, D3, D4 (read)	Constraints: min mark, timetable clash, max hours	Allocation validation
F9	Organiser	P7 → D6 (sessions)	Session CRUD (dayOfWeek, time, venue, type)	Session scheduling
F10	D1, D2, D5	P8 → Organiser	Aggregated reports & analytics	Report request