



Learn SAT Technology

A self-paced kit for students: how business automation software is designed, how every employee gets an account, and how APIs tie the tools of a business together.

What you will be able to do

2022 Explain how a business process becomes a workflow inside software.

2022 Model users, roles and permissions for a company of any size.

2022 Read and write REST API calls, and authenticate them safely.

2022 Connect a third-party tool to a core platform and keep data in sync.

2022 Judge where AI helps in an operations workflow — and where it does not.

The eight modules

#	Module	You will build	Hours
1	Business processes, mapped	A process map for a real shop or clinic	3
2	Users, roles and permissions	A role matrix for 5 departments	3
3	Data model basics	An ER diagram for orders and invoices	4
4	CRM concepts	A lead-to-customer pipeline	4
5	ERP concepts	Stock, purchase and billing flow	5
6	APIs and integration	A working API client in plain JavaScript	6
7	Automation and AI assist	A rule engine plus an AI summary step	5
8	Rollout and training	A go-live checklist and training plan	3

Suggested pace: one module a week alongside classes, or the full kit in two weeks full-time.



Module 6 preview — your first API call

Every screen in an automation platform is just a view over an API. Learn the API and you can build anything on top of it: a mobile app, a dashboard, a bot, or a bridge to a tool the business already uses.

1. Ask for a token

Never put a password in an app. Exchange credentials once for a short-lived token, then send the token with every request.

```
POST /api/v1/auth/token
Content-Type: application/json

{ "client_id": "student-demo", "client_secret": "*****" }
```

2. Read something

```
GET /api/v1/employees?department=sales&limit=25
Authorization: Bearer <token>
```

3. Change something

```
POST /api/v1/leave-requests
Authorization: Bearer <token>

{ "employee_id": "EMP-1042", "from": "2026-03-02",
  "to": "2026-03-04", "reason": "Family function" }
```

4. React to something

A webhook is the platform calling you. Register a URL, and every approval, invoice or stock movement arrives as a small JSON message you can act on.

Practice set

- 2022 List every employee who joined in the last 90 days, sorted by department.
- 2022 Create a purchase order, then cancel it, and note which fields changed.
- 2022 Handle a 429 rate-limit response by retrying with a growing delay.
- 2022 Write a webhook receiver that logs invoice.paid events to a file.

What else is in this kit

- 2022 **api-playground.html** — open it in any browser, no install, and practise reading API responses with a mock SAT dataset.
- 2022 **sample-data/** — employees, products and invoices as JSON you can load into your own exercises.
- 2022 **exercises.md** — 24 graded tasks with hints.
- 2022 **glossary.md** — plain-language definitions of ERP, CRM, SKU, webhook, idempotency and more.

Questions about the kit: students@satsoftwares.com