TALENT ENGINEERING ACADEMY

ATS and CRM Data Architecture

PRACTICE WORKBOOK

Model recruitment entities, relationships and events so records stay usable across search, sales and delivery.

PATHWAY	Recruitment AI, Data and Systems
LEVEL	Practitioner
EDITION	2026.09
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Free learning. Practical work. Better recruitment.

An education initiative by Vitae.

WORKBOOK GUIDE

Build something useful as you learn.

This workbook turns the course into a practical piece of work you can review, refine and adapt. Print it, annotate it digitally, or use the prompts in your preferred notes tool.

YOUR COURSE DELIVERABLE

An entity model, field dictionary and integration ownership map.

How to use this workbook

01 Work through the course lessons in order, then complete the matching workbook prompts.

02 Use fictional or properly authorised information. Do not add candidate or client confidential data.

03 Compare your decisions with the self-review guidance. Revise assumptions, gaps and unclear ownership.

04 Keep the finished workbook as evidence of your learning and as a starting point for real work.

BEFORE YOU START

Talent Engineering Fundamentals, or equivalent recruitment experience.

Course page: https://talentengineering.org/courses/ats-crm-architecture

PART 1

Plan your course deliverable.

Use these planning pages to define what you are producing before you work through the lesson exercises. Return to them as your thinking develops.

WORKSHEET 01

Entities and stable identifiers

Capture the evidence, decisions, assumptions, owners and next actions that make this section usable.

YOUR WORKING NOTES

WORKSHEET 02

Relationships and cardinality

Capture the evidence, decisions, assumptions, owners and next actions that make this section usable.

YOUR WORKING NOTES

WORKSHEET 03

Field definitions and ownership

Capture the evidence, decisions, assumptions, owners and next actions that make this section usable.

YOUR WORKING NOTES

WORKSHEET 04

Events versus current state

Capture the evidence, decisions, assumptions, owners and next actions that make this section usable.

YOUR WORKING NOTES

WORKSHEET 05

Integration source of truth

Capture the evidence, decisions, assumptions, owners and next actions that make this section usable.

YOUR WORKING NOTES

WORKSHEET 06

Migration and reconciliation checks

Capture the evidence, decisions, assumptions, owners and next actions that make this section usable.

YOUR WORKING NOTES

PART 2

Apply each lesson.

Each exercise is designed to turn the lesson into evidence of practice. Complete the task, then use the guidance to challenge your first answer.

LESSON 01 / 04

Model entities and relationships

YOUR PRACTICE TASK

Draw six entities and their relationships for a fictional agency.

YOUR RESPONSE

FICTIONAL WORKED EXAMPLE

A candidate applies for two roles. Their contact details belong to the person record, while interview stage and decision belong to each application. Rejecting one application must not mark the person rejected everywhere.

SELF-REVIEW GUIDANCE

Include person-to-application and organisation-to-vacancy relationships. Explain where role-specific notes belong. Avoid using an email address as an immutable identity because addresses can change or be shared.

LESSON 02 / 04

Create a useful field dictionary

YOUR PRACTICE TASK

Define ten fields for a vacancy and application, including missing-value rules.

YOUR RESPONSE

FICTIONAL WORKED EXAMPLE

A salary field stores 60 without currency or period. The revised design separates amount, currency, annual or hourly basis and whether it is expectation, advertised range or agreed offer.

SELF-REVIEW GUIDANCE

Every field should have one meaning and an owner. Include units and source dates where needed. Remove required fields that cannot legitimately be known at initial research.

LESSON 03 / 04

Separate current state from event history

YOUR PRACTICE TASK

Map ownership and event flow between a fictional ATS, CRM and email tool.

YOUR RESPONSE

FICTIONAL WORKED EXAMPLE

The ATS owns application stage while the communications system owns delivery events. A bounced email can create a review task but cannot automatically overwrite the candidate’s assessment decision.

SELF-REVIEW GUIDANCE

Specify which updates are authoritative and which are signals for review. Include a conflict example and preserve the distinction between contact delivery and hiring status.

LESSON 04 / 04

Plan migration and reconciliation

YOUR PRACTICE TASK

Write a migration checklist with five validation cases and a reconciliation table.

YOUR RESPONSE

FICTIONAL WORKED EXAMPLE

Two people share the same name and employer. A migration that merges by name loses separate application histories. The test detects the collision and routes it for identity verification instead of forcing a merge.

SELF-REVIEW GUIDANCE

Include duplicate names, changed emails, multiple applications, withdrawn candidates and restricted records. Compare relationships and critical fields as well as totals. This exercise does not authorise a live migration.

FINAL REVIEW

Strengthen the work before you use it.

Review the completed workbook as one connected piece of work. The strongest deliverables are internally consistent, explicit about limitations and clear about who decides what happens next.

- [ ] The work distinguishes facts, evidence, assumptions and open questions.
- [ ] Decisions have named owners, dates and review points.
- [ ] Measures connect to the outcome rather than activity alone.
- [ ] Risks, accessibility needs, privacy considerations and limitations are visible.
- [ ] The next action is specific enough for another person to follow.
- [ ] The finished deliverable can be explained in plain language.

FINAL CHANGES AND NEXT ACTIONS

FURTHER READING

Continue with trusted sources.

These sources support further study. A reference does not imply endorsement. Check the current official rules and obtain appropriate professional advice for real legal, financial or regulated decisions.

GOV.UK: Responsible AI in recruitment

UK guidance on procuring and deploying recruitment AI.

https://www.gov.uk/government/publications/responsible-ai-in-recruitment-guide/responsible-ai-in-recruitment

NIST: AI Risk Management Framework

Voluntary framework for organising AI risks and controls.

https://www.nist.gov/itl/ai-risk-management-framework

ABOUT THIS WORKBOOK

Original educational scenarios. Practical work is self-directed and is not independently assessed. Adapt any method to your context with appropriate review.

Talent Engineering Academy is an education initiative by Vitae.