

Milestone 4 CASE STUDY (Re-Attempt – 120 MIN)

“Contoso Unified Customer Intelligence & Automation Platform”

Role Context

You are part of the Enterprise Data & Platform Engineering Team at Contoso Services Ltd., supporting a multi-region Dynamics 365 Customer Service deployment.

Leadership wants to evolve from basic reporting to a decision-driven service intelligence platform that balances:

- Governance
- Cost control
- Security
- Performance
- Analytical maturity

You are expected to design, justify, and partially implement a solution—not just configure tools.

Time Limit: 120 minutes

Focus: Application of concepts / Real-world enterprise scenario

Business Context & Challenges

Contoso operates across multiple business units and regions.

Current challenges include:

- Fragmented reporting (operations vs leadership)
- No standardized KPI definitions
- Manual escalations and inconsistent workflows
- Overuse of CRM storage and poor attachment governance
- Lack of observability for reporting and automation failures
- Security gaps in external integrations

Leadership wants:

- Governed reporting architecture
 - Automated exception handling
 - Secure, auditable Azure integrations
 - Data-driven service improvement recommendations
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ADVANCED USER STORIES (6 TOTAL)

User Story 1 – Enterprise Reporting Architecture (SSRS)

As an Enterprise Reporting Lead,
I want a scalable SSRS reporting framework,
so that operational reporting remains consistent across regions.

Scope

- Multi-parameter SSRS report
- Region, priority, SLA, date range
- Drill-through or sub-reports

Acceptance Criteria

- Reusable datasets
 - Parameter dependency handling
 - Performance-aware design (indexes, query structure)
 - Explicit justification of SSRS over Power BI for this use case
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User Story 2 – Executive Analytics & KPI Governance (Power BI)

As a CXO,
I want standardized service KPIs with governance,
so that decisions are based on consistent metrics.

Requirements

- KPI definition document (e.g., SLA breach logic)
- Power BI dashboard with:
 - Trends
 - Exceptions
 - Root-cause indicators

Acceptance Criteria

- KPI governance explained
 - Use of calculated measures
 - Data storytelling and insight narrative
 - Discussion of Power BI refresh & licensing constraints
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User Story 3 – Secure Identity & External Access Strategy

As a Security Architect,
I want a secure identity model for internal users and partners,
so that access is controlled without exposing CRM directly.

Scope

- Azure AD for employees
- Azure AD B2C for external portals
- Token-based access explanation

Acceptance Criteria

- Authentication vs authorization clarity
- Role-mapping strategy

- Security risks and mitigations
 - No full deployment required
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User Story 4 – Advanced Automation & Exception Handling

As a Service Operations Manager,
I want automated workflows with failure handling,
so that critical service issues never go unnoticed.

Scope

- Azure Logic Apps for orchestration
- Azure Functions for business logic
- SLA breach escalation workflow

Acceptance Criteria

- Clear separation of orchestration vs logic
 - Retry, timeout, and failure paths
 - Cost and scaling considerations
 - When NOT to use serverless
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User Story 5 – Data Storage, Secrets & Observability

As a Platform Engineer,
I want centralized storage, secrets, and monitoring,
so that the system is secure and observable.

Scope

- Azure Blob Storage for attachments
- Azure Key Vault for secrets
- Azure Application Insights for telemetry

Acceptance Criteria

- Secure access pattern explanation
 - Sample logs and metrics
 - Alerting scenarios
 - Limitations and trade-offs
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User Story 6 – Analytical Thinking & Service Optimization

As a Business Analyst,
I want actionable insights from service data,
so that service quality and cost efficiency improve.

Requirements

- Root-cause analysis
- Trend identification
- Recommendations tied to KPIs

Acceptance Criteria

- Clear analytical process
 - Business-aligned insights
 - Practical recommendations
 - Awareness of data limitations
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ADVANCED ANALYTICAL THINKING DELIVERABLE

Participants must explicitly document:

1. Problem framing and constraints
2. Analytical questions

3. Assumptions and data gaps
 4. Insights derived
 5. Business recommendations
 6. Risks and future improvements
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EVALUATION RUBRIC (OUT OF 100)

| Area | Marks |
|---------------------------------------|-------|
| Problem Framing & Objectives | 10 |
| SSRS Architecture & Performance | 15 |
| Power BI Analytics & Governance | 15 |
| Identity & Security Design | 15 |
| Automation & Failure Handling | 15 |
| Azure Storage, Secrets & Monitoring | 10 |
| Analytical Insights & Recommendations | 10 |
| Documentation & Communication | 10 |
| Total | 100 |

SUBMISSION INSTRUCTIONS (PORTAL)

Mandatory Artifacts

1. SSRS report (.rdl) or screenshots
2. Power BI dashboard (.pbix) or screenshots
3. Architecture diagram
4. Automation flow diagrams / pseudo-code
5. Analytics insight document

Optional (Bonus)

- KPI definition sheet
- Alerting strategy
- Cost estimation