

10 tips for getting started with SAP BTP using AI



App development and automation pillar

This pillar is all about building and extending SAP applications and automating business workflows on BTP. AI accelerates the development cycle and ensures the resulting solutions are robust and well-specified.

AI enhancements and practical project ideas

AI enhancement	Project start example	Practical AI use (Getting started)
1. Refine requirements and look for gaps in the specifications	Implementing a custom Purchase Requisition (PR) approval app using SAP Build Apps.	A developer feeds the initial, text-based PR requirement document into an AI assistant (Joule Studio). The AI analyzes the text, cross-references it with standard SAP PR business logic, and suggests, 'The specification is missing an exception rule for PRs created by temporary staff. Should these be auto-routed to HR?' This early gap detection prevents costly rework later.
2. Generate code	Building a BTP extension service (using SAP Build Code or Cloud Application Programming Model (CAP)) that exposes custom logic.	A developer prompts the AI: 'Generate a CAP service entity and logic for a 'Material Availability Check' that consumes the S/4HANA OData service API_PRODUCT_SRV and includes basic CRUD operations.' The AI generates the required data model, service definition, and boilerplate JavaScript/Java code, cutting hours of foundational coding time.
3. Create automated processes through natural language	Automating the full employee onboarding process across SuccessFactors and IT ticketing systems via SAP Build Process Automation.	A business user inputs the prompt into the Process Automation designer: 'Automate onboarding: Trigger after SuccessFactors hire date. Create IT tickets for laptop and badge. Send a welcome email to the manager with a pre-populated task list.' The AI generates a multi-step, integrated workflow, including the required decision gates and connectors, ready for minor configuration.

Integration Pillar

The Integration pillar focuses on connecting diverse systems using SAP Integration Suite. AI reduces the complexity and labor-intensive nature of creating and monitoring data flows.

AI enhancements and practical project ideas

AI enhancement	Project start example	Practical AI use (Getting started)
4. Data mapping	Integrating an external logistics system's shipment file (e.g., CSV/XML) into the S/4HANA Shipment API.	You upload the external file structure and select the target SAP API in the SAP Integration Suite Mapping Tool. The AI analyzes field names (e.g., cust_ID, delivery_address) and uses its knowledge of SAP semantics (e.g., to map cust_ID to CustomerNumber) to provide 90%+ accurate mapping suggestions with confidence scores. This drastically reduces manual mapping effort.
5. Interface design	Designing a new interface for real-time inventory updates from a warehouse management system to S/4HANA.	You tell the AI assistant your goal: 'I need a high-volume, real-time inventory update integration to S/4HANA. Suggest an optimal SAP Integration Suite flow.' The AI analyzes the traffic requirement and recommends an Event Mesh-based pattern for asynchronous, high-throughput delivery, providing a starter integration flow template with pre-configured event listeners and error-handling best practices.
6. Integration monitoring (focusing on new integrations to monitor if the result is as expected)	After deploying the new Purchase Order (PO) creation interface from an external procurement system.	The AI-powered monitoring tool in SAP Integration Suite is configured to learn the pattern of the first 50 successful PO creations. When the 51st PO fails to create a corresponding entry in S/4HANA, the system immediately flags it as an anomaly because the end-to-end flow completion rate unexpectedly dropped from 100% to 98% – even if no technical error occurred in the BTP flow itself (e.g., if the failure was a new S/4HANA validation error).

Data and Analytics Pillar

This pillar is critical for managing data in SAP Datasphere and generating insights via SAP Analytics Cloud. AI transforms raw data into understandable, strategic information.

AI enhancements and practical project ideas

AI enhancement	Project start example	Practical AI use (Getting started)
7. Data discovery and preparation	Onboarding a new, messy dataset (e.g., free-text customer feedback) into SAP Datasphere.	You connect the data and the AI-driven data quality service automatically profiles the data. It suggests: 'Field 'Feedback_Text' is highly unstructured. Run a sentiment analysis model (from SAP AI Core) and create a new calculated column 'Sentiment_Score' for downstream consumption.' It also highlights and suggests automated correction rules for null values in the 'Customer_ID' field.
8. Interpret data and roles to suggest the best metrics to show on a dashboard	Creating a new executive dashboard in SAP Analytics Cloud (SAC) for the Head of Procurement.	Based on the user's role and the underlying data (e.g., Spend, Supplier Risk, Contract Expiry), the AI-powered SAC Story Designer suggests the most relevant metrics, visualizations, and business context, such as 'Total Spend by Category (Treemap)', 'Supplier Risk Score Trend (Line Chart)', and a pre-configured Variance Analysis focused on unbudgeted expenditures.
9. Create Test Data	Building a prototype dashboard in SAP Analytics Cloud before the full live S/4HANA data integration is complete, or for non-production environments.	You define the required data structure (e.g., fields: SalesOrg, CustomerName, NetValue, PostingDate). Generative AI (integrated via Datasphere or AI Core) is prompted: 'Generate 10,000 synthetic sales order records for Q4, with 80% of sales coming from the 'North America' region and NetValue following a normal distribution.' The AI instantly creates a realistic, and masked dataset, allowing dashboard development to start immediately.

Bonus tip: Accelerating project delivery beyond the pillars

The three BTP pillars focus on the technical build. This bonus point focuses on the crucial project management and documentation aspects that consume significant time during implementation.

AI enhancement	Practical AI use (getting started)	Speed/enhancement value
10. Generative AI for instant documentation and QA	The project is complete, and you need to hand over the solution to the support team or end-users.	You point a Generative AI tool (grounded in your project's code, models, and process flows) to the developed artifacts in SAP Build Code and SAP Build Process Automation. The AI instantly generates: a. Technical Documentation: API specifications, integration flow descriptions, and CAP service documentation. b. User Training: Step-by-step guides for the custom app's features and an FAQ list based on requirements and initial testing. c. Test Script Generation: The AI creates automated unit test scripts and suggests high-impact test scenarios based on the generated code and identified business risks.

The AI action: This project transforms the tedious, manual process of documentation – which often lags and creates a bottleneck at project closure – into an automated, instantaneous task. It ensures that the knowledge transfer is complete, compliant, and accurate, shaving off weeks from the final project handover phase and ensuring a smooth transition to production support.

AI on SAP BTP

AI on SAP BTP is the catalyst for speed, quality, and intelligence. It fundamentally changes how we approach digital transformation:

- **Faster, smarter solutions:** AI cuts down development time by automating routine tasks and filling specification gaps.
- **Seamless, proactive integration:** AI makes complex data mapping effortless and monitors integrations intelligently to prevent business disruption.
- **Insight-driven decisions:** AI turns analysts into strategic partners by automating data preparation and generating immediate, contextual business insights.

By embedding these AI enhancements, BTP projects move from long, manual efforts to rapid, intelligent business transformations.