

Unlocking the Power of SAP BTP Development with AI: Strategies and Considerations

- Who we are
- AI market and predictions
- Benefits of AI in SAP BTP
- Demo
- AI ethics and privacy



WHO WE ARE



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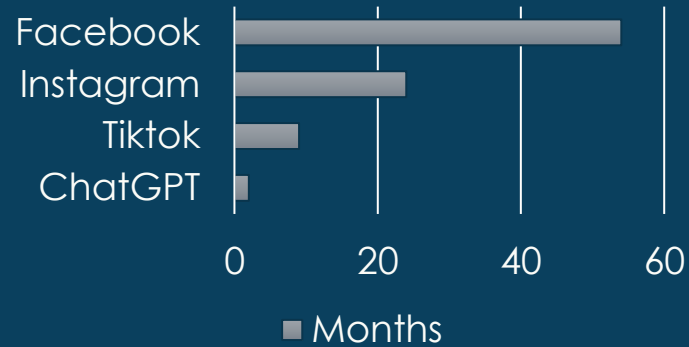
Pearl Group

- Nordics largest SAP Partner
- 400 Employees
- 125+ Customers
- PearlS/4Move - SAP certified since 2019
- 32 succesfull S/4Hana projects in production

AI Disruption

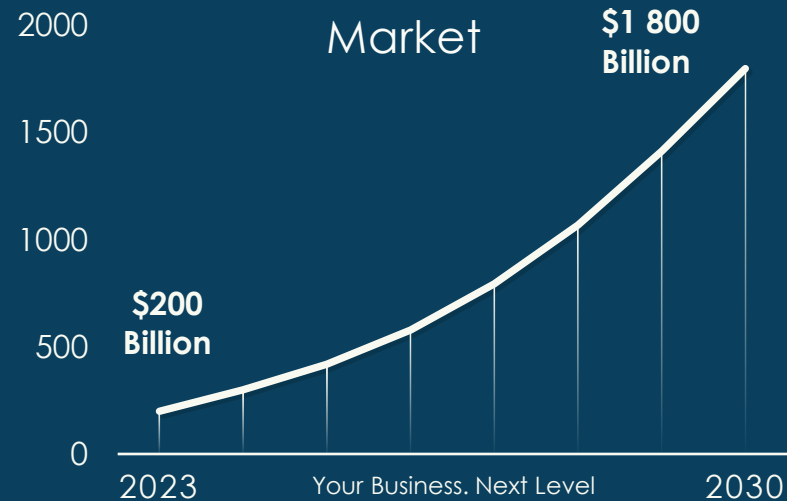
- 2023 is generative AI's breakout year
- ChatGPT speed of growth:
 - July 2023 visits/month 1.5 Billion.
- Microsoft announced 365 Copilot

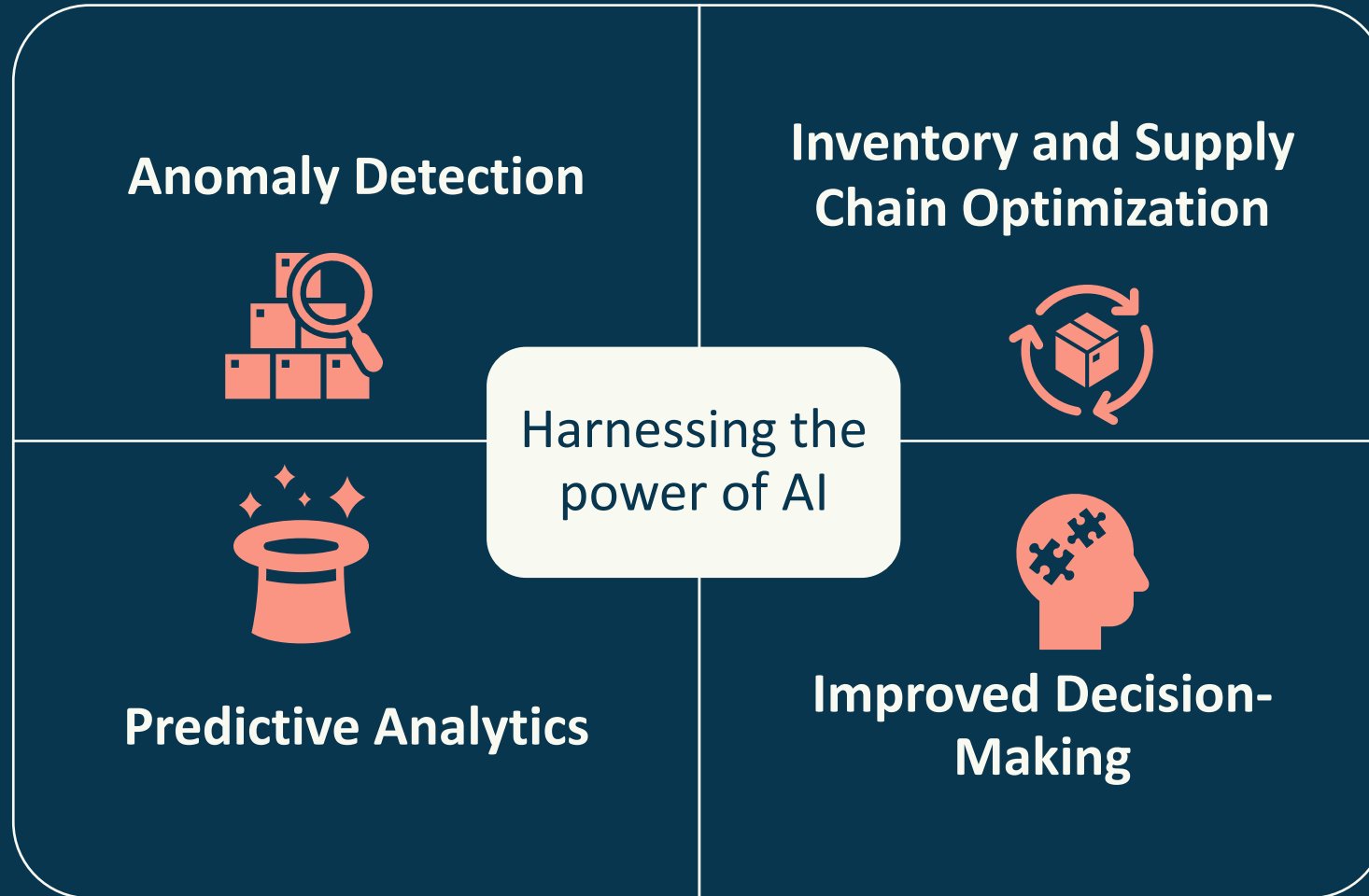
Time to 100 Million users



Prediction

- Comprehensive AI Integration
 - Personal assistant in your favorite daily tools.





What about AI and SAP BTP?

The screenshot displays the SAP Discovery Center interface. At the top, there is a search bar and filters for Commercial Model (All - 5), Provider (All - 5), and Regions (All - 25). The main content area shows a grid of 9 services, all marked as 'FREE TIER'. The services listed are:

- Business Entity Recognition:** Detect and highlight entities in unstructured text using machine learning.
- Data Attribute Recommendation:** Apply machine learning to predict and classify data records.
- Document Information Extraction:** Use machine learning to automate your document information extraction processes.
- Intelligent intercompany reconciliation:** Match intercompany documents with machine learning capabilities.
- Personalized Recommendation:** Get recommendations based on users' browsing history and/or item description.
- SAP AI Core:** Build a platform for your artificial intelligence solutions.
- SAP AI Launchpad:** Manage AI transparently across your enterprise.
- SAP Translation Hub:** Translate UI texts and documents and get UI text suggestions during development.

On the left side, there are navigation menus for Categories, Solutions (with 'AI' selected), and Capabilities.

<https://discovery-center.cloud.sap/index.html>

Github Copilot

- An AI-powered coding assistant developed by GitHub in collaboration with OpenAI. It is designed to assist developers in writing code more efficiently and effectively by providing suggestions, auto-completions, and even generating entire code blocks.
- Utilizes the identical language model as ChatGPT (GPT-4 version).

More Tools

- SAP Joule
- ABAP GPT
- Amazon CodeWhisperer
 - Similar to Copilot, AI-powered coding assistant by Amazon
- ChatGPT
- DALL-E
 - AI model developed by OpenAI that generates images from textual descriptions



I want to create a **BTP application** for a bookshop. I'm a developer in BTP space and use **Generative AI** to help me with the development while keeping the **core clean**.

AI GENERATED FIORI UI

```

View1.view.xml 1, U
example-app > app > project1 > webapp > view > View1.view.xml
1 <mvc:View controllerName="fi.pearl.demo.project1.controller.View1"
2   xmlns:mvc="sap.ui.core.mvc" displayBlock="true"
3   xmlns="sap.m">
4   <Page id="page" title="{i18n>title}">
5     <content>
6       <!-- Create sap.m.Table for displaying Books from CAP service -->
7       <Table id="table" items="{/Books}">
          <headerToolbar>
            <ToolBar>
              <Title text="{i18n>tableTitle}"/>
              <ToolBarSpacer/>
              <Button text="{i18n>tableRefreshButtonText}" press="onRefresh"/>
            </ToolBar>
          </headerToolbar>
          <columns>
            <Column>
              <Text text="{i18n>tableColumnID}"/>
            </Column>
            <Column>
              <Text text="{i18n>tableColumnNameTitle}"/>
            </Column>
            <Column>
              <Text text="{i18n>tableColumnStock}"/>
            </Column>
          </columns>
          <items>
            <ColumnListItem>
              <cells>

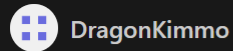
```

Pearl demo

tableTitle		
tableColumnID	tableColumnNameTitle	tableColumnStock
1	Wuthering Heights	100
2	Jane Eyre	500

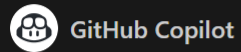
tableRefreshButtonText

AI AS PAIR PROGRAMMER (SAPUI5)



DragonKimmo


How can I modify the UI to delete a Book from backend service



GitHub Copilot

To modify the UI to delete a book from the backend service, you can add a delete button to each row in the table. When the button is clicked, it will trigger a function that sends a DELETE request to the backend service to delete the corresponding book. Here's an example of how you can modify the code:

```
<ColumnListItem>
  <cells>
    <ObjectIdentifier title="{ID}"/>
    <Text text="{title}"/>
    <Text text="{stock}"/>
    <Button icon="sap-icon://delete" press="onDel
  </cells>
</ColumnListItem>
```

tableColumnStock	tableColumnDelete
100	

```
Event handler of "sap.m.Button~press" | 1 reference
onDelete: function (oEvent) {
  var oList = this.getView().byId("list");
  var oItem = oEvent.getParameter("ListItem");
  oList.removeItem(oItem);
}
```

AI AS PAIR PROGRAMMER (SAP CAP)

```
example-app > srv > JS cat-service.js > ...  
1 // Imports  
2 const cds = require("@sap/cds");  
3  
4 module.exports = cds.service.impl(async function () {  
5   const { Books } = this.entities;  
6   //extend CatalogService Books on delete  
7  
8  
9 });
```

→

```
4 module.exports = cds.service.impl(async function () {  
5   const { Books } = this.entities;  
6  
7   // Extend Books service with on delete event  
8   this.after('DELETE', 'Books', async (req) => {  
9     const book = await cds.transaction(req).run(SELECT.one(Books).where({ ID: req.params.ID }));  
10    if (book.stock > 0) {  
11      req.error(409, `Cannot delete book with stock`);  
12    }  
13  });  
14 });
```

extend CatalogService Books on delete with logic to not allow to delete books with stock

Accept Discard | v ↻ Changed 8 lines

ETHICAL GUIDING PRINCIPLES OF AI:





KEY PRIVACY PILLARS

Data Collection & Usage

Clear information about what data is being collected, how it's being collected, and the specific purposes for which it will be used. This should encompass both personal and non-personal data.

User Consent

Details on how user consent is obtained and the ability for users to opt-in or opt-out of data collection and processing activities.

Data Security

A commitment to maintaining the security of the data collected, including measures such as encryption, access controls, and regular security audits.

User Rights

Explanation of the rights users have regarding their data, including the right to access, correct, or delete their data.

Brad Smith, Microsoft:

”Don’t ask what computers can do, ask what they should do.”

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