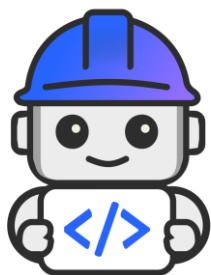
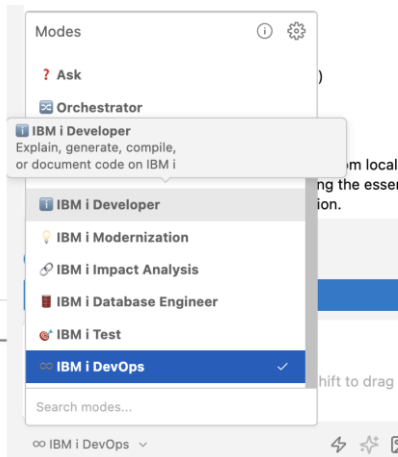
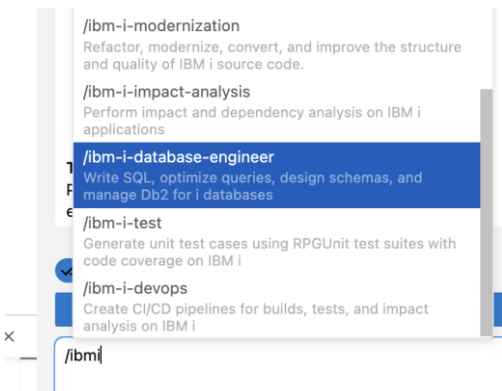


Premium Package for IBM i

Provide IBM i development team with native experience and optimized results



IBM i



Native IBM i Connection

Unified developer experience.

Access to IBM i system enables read, write, compile from Bob, providing a one-stop-shop experience

Pre-built Skills

Better results with less tokens. More productive.

Pre-built skills for code explanation, generation, documentation, unit test generation, and conversion

Pre-built Tools

End to End Productivity gains

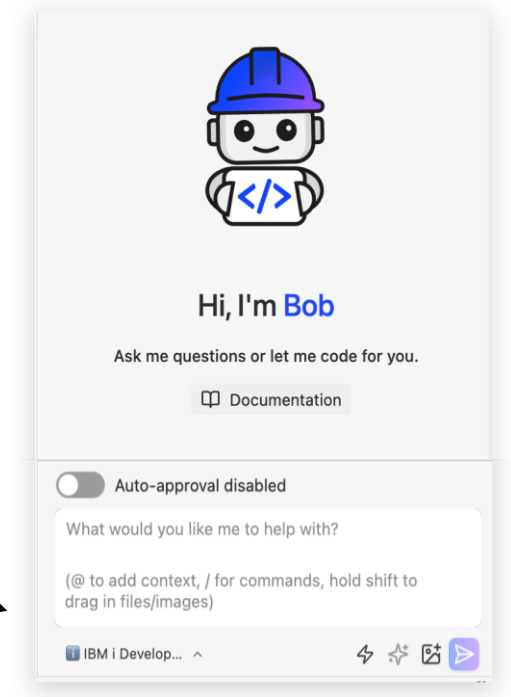
IBM i Developer, Modernization , Impact Analysis, Database, Test, DevOps, Knowledge Assistant...

Premium Package for IBM i

Mode – Provides Bob with scope and behavior detail

With in the IBM i Developer Mode

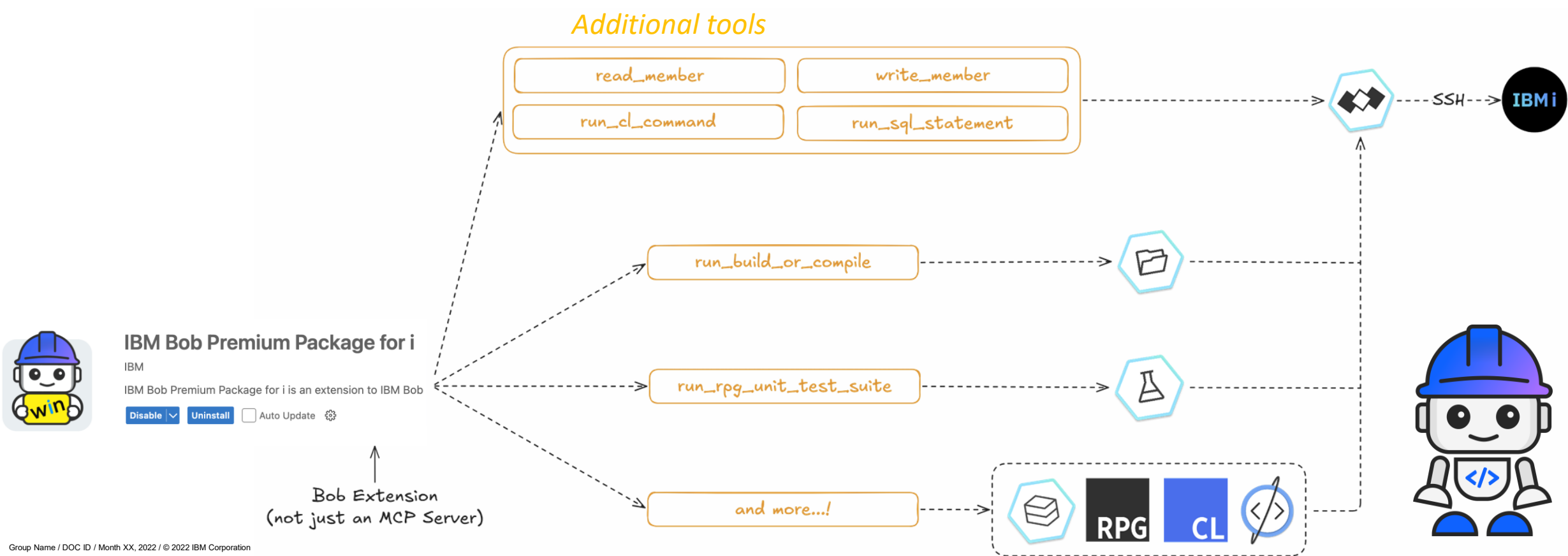
- Skills – specialized capability to allow Bob to perform a task – Over 40 new Skills
 - Explain, Code Generation, Testing, Refactor, Code Build
 - Example – Document Business Rules, Generate Display File, Generate RPGUnit Test Cases , Refactor Subroutines to Procedures, and more!
- Workflows – Provides a step-by-step flow to solve a task, allows for user interaction and decisions based on findings
 - Fixed to Free - Sounds simple right ? Nope...
 - Cycle, iSpec, oSpec, OPM->ILE are just a few special items that when encountered need to be handled



Premium Package for IBM i

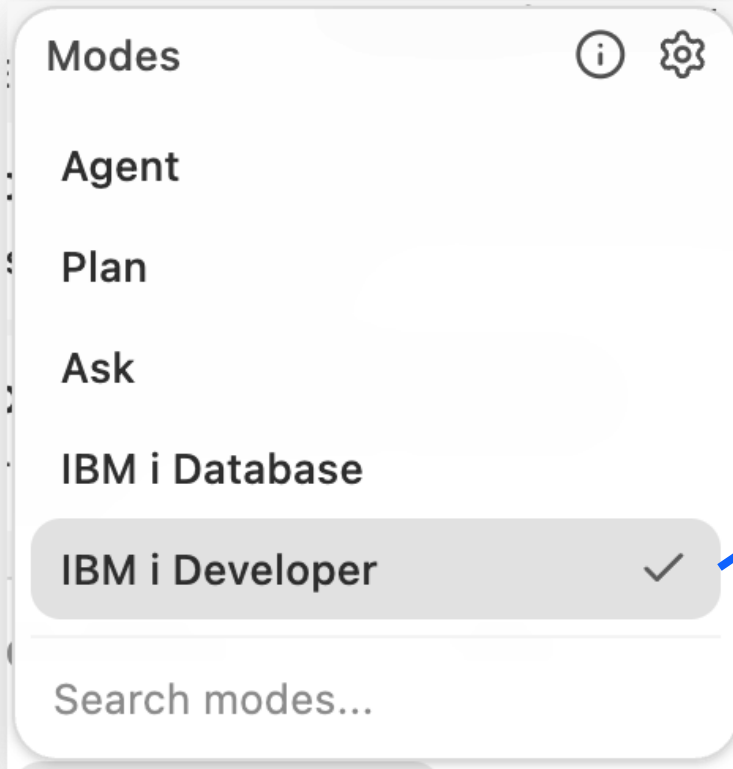
Bob with IBM i superpowers

- ➔ Built-in tools that work seamlessly with Code for i extensions
- ➔ Compatible with MCP servers: IBM-provided, third party...



IBM i Developer Mode

Bob adopts a senior IBM i developer persona



Who are you ? Take into account the selected Mode

I'm **Bob**, a highly skilled IBM i Developer with deep expertise across the full IBM i development stack.
Here's what I specialize in:

Languages & Technologies

- **RPG:** OPM RPG (RPG II, RPG III, RPG/400), ILE RPG (RPG IV, Fixed-form & Free-form RPGLE, SQLRPGLE)
- **SQL:** Db2 for IBM i — DDL, DML, DQL, stored procedures, UDFs, table functions
- **CL:** Control Language — OPM CL, ILE CL (CLLE), command definitions
- **DDS:** Physical files (PF), Logical files (LF), Display files (DSPF), Subfiles, Printer files (PRTF)
- **COBOL:** ILE COBOL on IBM i

IBM i Platform Expertise

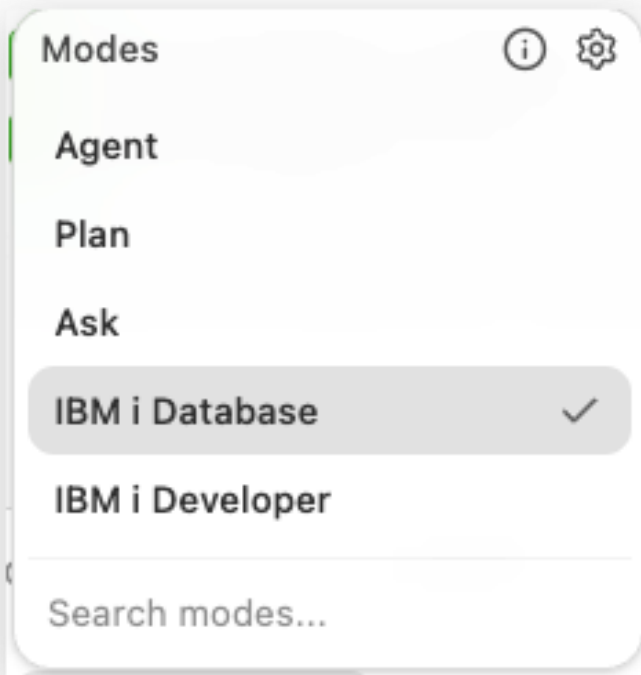
- **File Systems:** QSYS library file system and IFS (Integrated File System)
- **Job Management:** Job logs, spool files, active jobs, subsystems
- **Database:** Db2 for IBM i — native I/O, embedded SQL, SQL services (QSYS2, SYSTOOLS)
- **Security:** Authority management, object-level security, least-privilege principles
- **Compilation:** CRTBNDRPG, CRTSRVPGM, CRTPGM, CRTCLMOD, and related commands
- **Testing:** RPGUnit test framework — test suites, assertions, code coverage

Development Approach

- **Incremental changes** with todo tracking for multi-step tasks
- **Iterative development** — code → compile → test → refine
- **Code documentation** and technical documentation generation
- **Security-first** — default AUT(*EXCLUDE), explicit authority, deny-by-default

IBM i Database Mode

Bob adopts a Db2 for i expert persona



Who are you ? Take into account the selected Mode

I'm **Bob**, your IBM i database expert — specialized specifically in **Db2 for i** and the IBM i database environment.

My Core Expertise

Db2 for IBM i

- **SQL:** DDL, DML, DQL, DCL, TCL — full SQL language mastery
- **Query Optimization:** Visual Explain, Plan Cache, Database Monitor, index strategy
- **SQL Services:** QSYS2, SYSTOOLS, SYSIBM catalog views and table functions
- **Stored Procedures & UDFs:** Scalar, table, and aggregate functions
- **Temporal Tables:** System-period versioning, time-travel queries
- **Journaling & Commitment Control:** Transaction integrity, recovery

Database Design

- **DDL:** CREATE TABLE, CREATE INDEX, CREATE VIEW, ALTER TABLE
- **DDS → DDL:** Converting legacy physical/logical files to modern SQL objects
- **Data Modeling:** Normalization, referential integrity, constraints
- **CCSID & Encoding:** Character set decisions for IBM i databases

Security & Performance

- **Authority Models:** GRANT/REVOKE, least privilege, adopted authority
- **Performance Tuning:** Slow query diagnosis, index advice, query rewrites
- **System Catalog:** Metadata discovery via QSYS2.SYSTABLES, SYSCOLUMNS, etc.

Premium Package for IBM i



Bob **WITHOUT** the Premium Package for i:

- ➔ No direct access to IBM i file systems
- ➔ Analysing IBM i source code requires a copy the code locally or local Git repository clone
- ➔ Need to install IBM i MCP Server to compile, run, create, update, delete, etc
limitations : manual handling of CL commands output

Bob **WITH** the Premium Package for i

- ➔ Direct access to IBM i file systems (via the Code for i extension)
- ➔ Source code analysis in source members or in the IFS
- ➔ Compilation, execution, creation, updating, deletion, etc., directly on the IBM I with direct feedback from CL command execution
- ➔ List of Tools : Premium PackageTools_March2026.pdf

Premium Package for IBM i – 2Q 2026

	Use Case	Core Bob	Premium Package for i
Developer	Understand & Explain	✓	💡
	Plan	✓	💡
	Code	✓	💡
	Debug	✓	💡
	Refactor	✓	💡
	Document	✓	💡
	Unit Test	✓	💡
	Compile		+
Architect	Business Logic Extraction	✓	💡
	Security & Compliance Analysis	✓	💡
	Business Documentation	✓	💡
Data Engineer	Data Analysis		+
	Optimize data indexing for SQL performance		+
	Monitor system health		+
System Admin	Automate system management		+
	Deploy		+
DevOps Engineer	Monitor		+
	CI/CID		+



Legends

- ✓ Use cases covered by Base Bob
- 💡 Use cases enhanced through native IBM i connection and Skills
- ➕ New use cases enabled by native IBM i connection

Client Presentations for IBM Bob Premium Packages:

- [IBM Bob Premium Package for IBM i](#)
- [IBM Bob Premium Package for Z](#)
- [IBM Bob Premium Package for Java](#)

Short BoB interface demo

SHOW, DON'T TELL

IBM Bob for IBM i — demonstration

Practical example, inspired from real projects by IBM Client Engineering EMEA teams.

DEMO 1

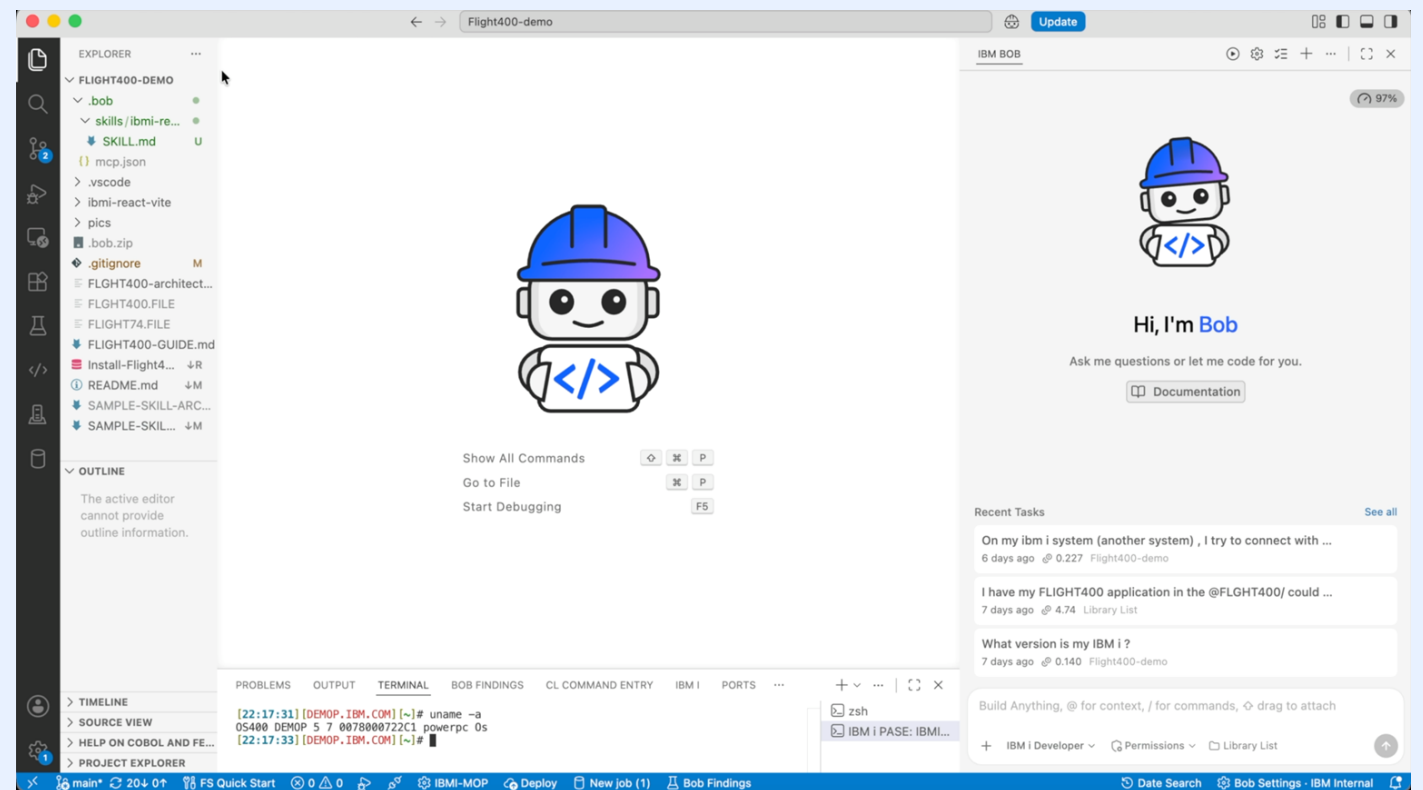
5250 Green Screen to React in minutes

Flight400 modernization with Premium Package for i:

→ DDS, PASE, RPG, DB2 skills + custom React skills in action

github.com/bmarolleau/flight400-demo (+video)

DEMO VIDEO



“From a simple 5250 screenshot, use Bob in IBM i Developer mode to analyze the FLIGHT400 Create FLIGHT400 Create Order 5250 screen and generate a modern React web application styled with the styled with the IBM Carbon Design System, running directly on IBM i PASE”

IBM Bob for IBM i — demonstration

Practical example, inspired from real projects by IBM Client Engineering EMEA teams.

DEMO 2

System Security audit in minutes

Security assessment with Premium Package for i:

→ PPI skills + custom IBM I Security skills in action

Real duration : 10 minutes

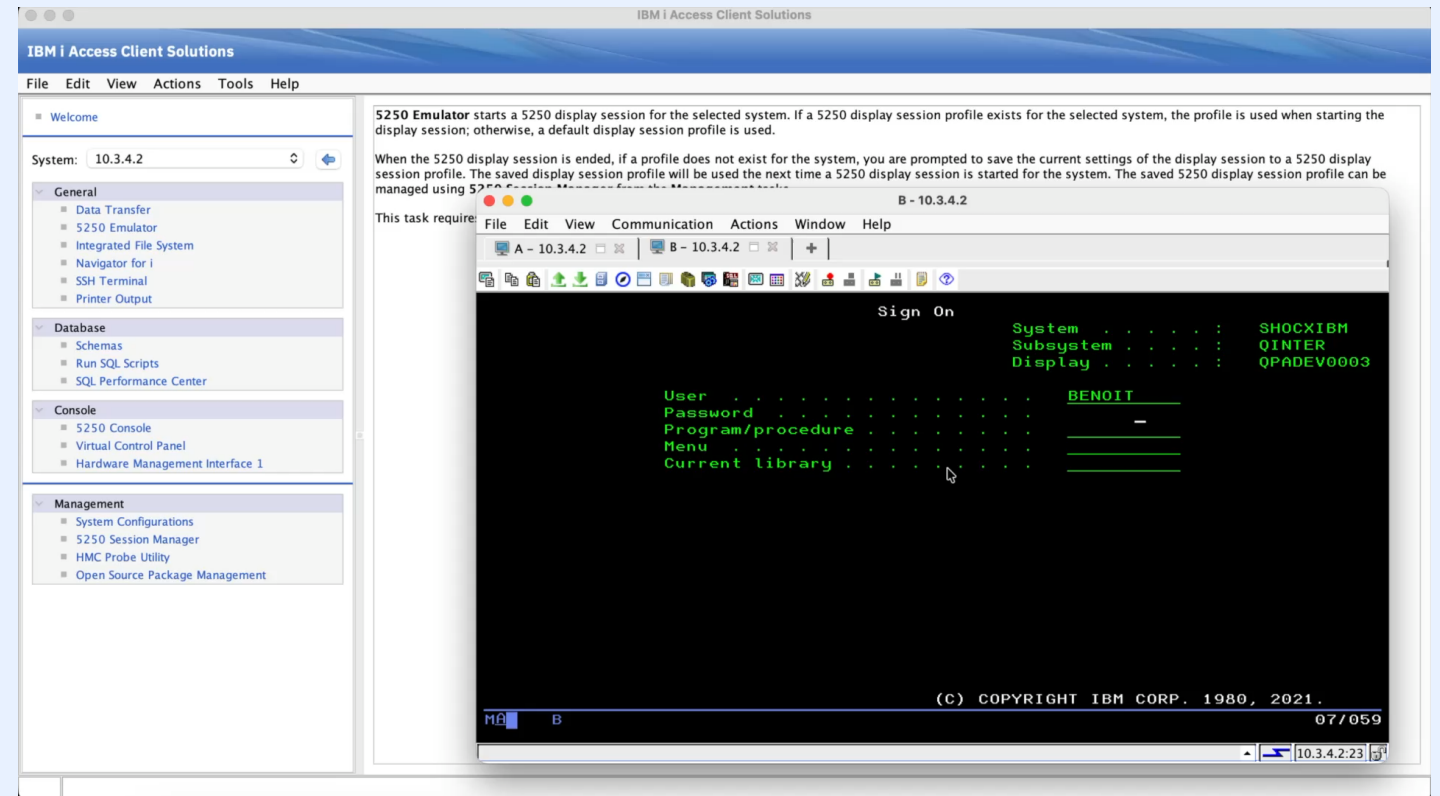
Consumption : 2.36 Bobcoins

User skills : Beginner

Bob Skills : SQL, System skills

github.com/bmarolleau/flight400-demo (+[video](#))

DEMO VIDEO



Bob & IBM i : demos

[IBM Bob Extracts Business Rules from Legacy RPG — Premium Package for i](#)

[IBM Bob Builds a New RPG Feature From Scratch — Display File, Backend, and Business Logic](#)

Explain

1. [Explain a Simple RPG Application](#)
2. [Explain a 1980 era ERP Application complete with Diagrams](#)
3. [Impact Analysis Report for File Level Access and Change](#)

Transform

1. [RPGII to Modern Free Format ILE RPG with Readable Variable Names](#)
2. [RPG Fixed to Free Conversion](#)
3. [Database - Replace Record Level Access Database Access with Embedded SQL Access](#)



<https://www.youtube.com/@ibm-bob>

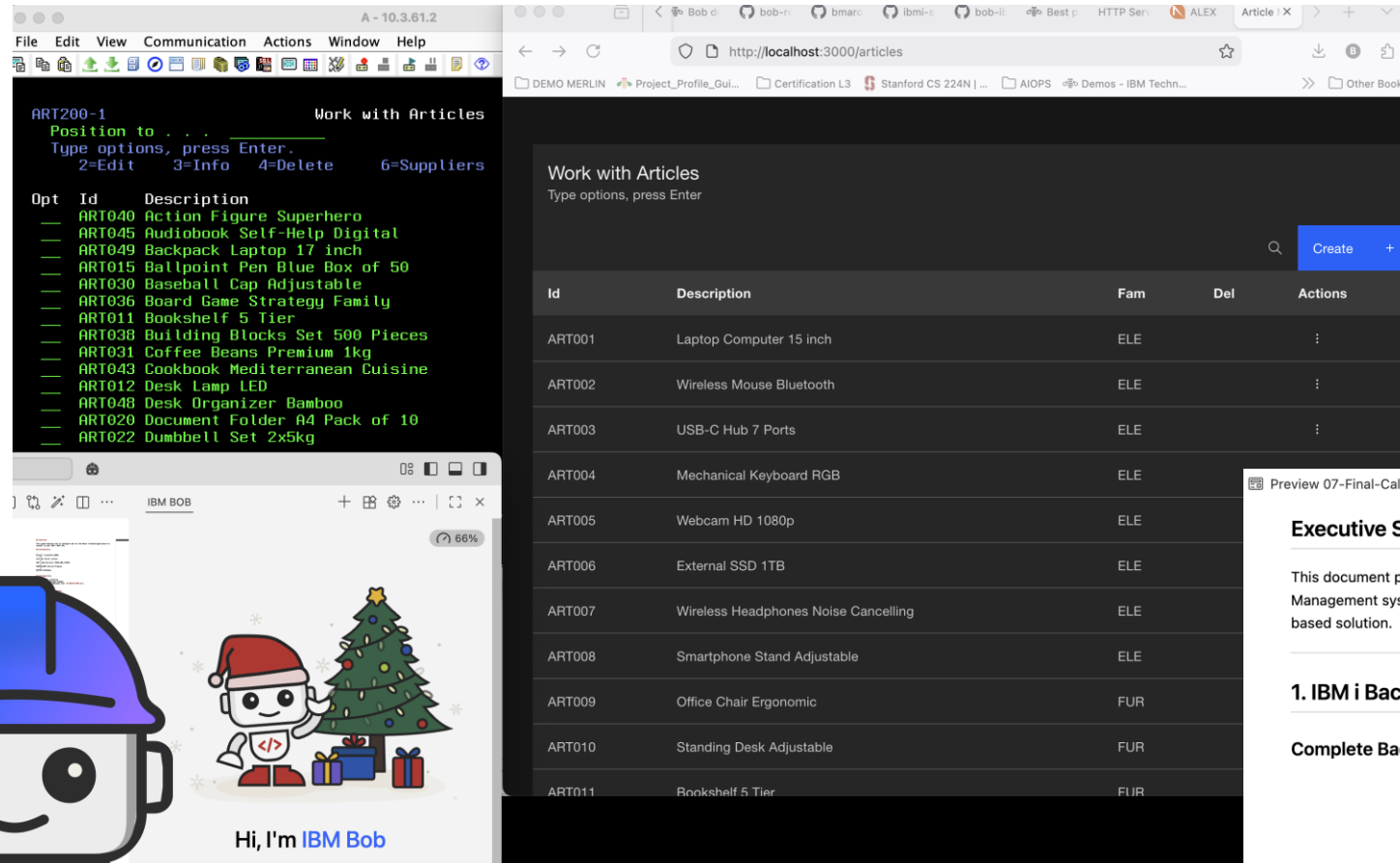
Refactor

1. [Refactor Variable Names to be Self Describing](#)
2. [Extract Procedures and Create Service Program](#)
3. [Remove Un-Used Variables](#)

Generate

1. [Generate Comments in Free Form RPG Program](#)
2. [Generate a brand new Vechile Management App – SQL, RPG, Python](#)
3. [Literate Mode for Code Completion in Line](#)
4. [Create Unit Testcases Leveraging RPGUNIT](#)

Bob & IBM i : Hands-on Labs



The screenshot displays the IBM Bob application interface. On the left, a terminal window shows a command-line interface for 'Work with Articles' with a list of articles. In the center, a web browser shows the same list of articles in a modern web application. On the right, a character named IBM Bob is shown with a hard hat and a code symbol on its chest, saying 'Hi, I'm IBM Bob'.

Id	Description	Fam	Del	Actions
ART001	Laptop Computer 15 inch	ELE		
ART002	Wireless Mouse Bluetooth	ELE		
ART003	USB-C Hub 7 Ports	ELE		
ART004	Mechanical Keyboard RGB	ELE		
ART005	Webcam HD 1080p	ELE		
ART006	External SSD 1TB	ELE		
ART007	Wireless Headphones Noise Cancelling	ELE		
ART008	Smartphone Stand Adjustable	ELE		
ART009	Office Chair Ergonomic	FUR		
ART010	Standing Desk Adjustable	FUR		
ART011	Bookshelf 5 Tier	FUR		

Key Backend Components

Service Programs:

- **FARTICLESRV**: Article CRUD operations, validation, information management
- **FLOOKUPSRV**: Family and VAT code lookups, price calculations
- **FCOMMONSRV**: JSON utilities, error handling, validation helpers
- **FCOUNTRY**: Country management and selection
- **FFAMILY**: Family management and selection
- **FVAT**: VAT calculations and management

Database Tables:

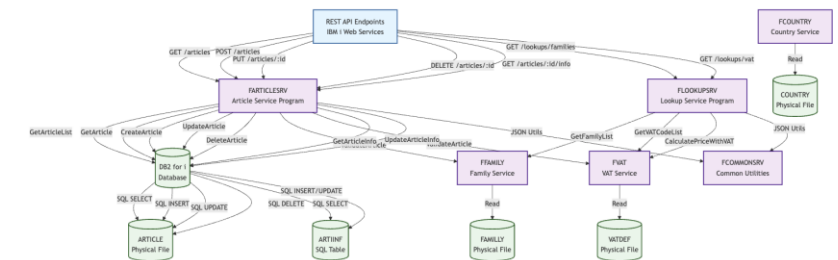
- **ARTICLE**: Main article master data (PF)
- **ARTIINF**: Extended article information (SQL Table)
- **FAMILY**: Product family/category master (PF)
- **VATDEF**: VAT code definitions (PF)
- **COUNTRY**: Country master data (PF)

Executive Summary

This document presents the complete call graph diagrams showing the modernized architecture of the Article Management system, illustrating the transformation from a legacy 5250 green-screen application to a modern web-based solution.

1. IBM i Backend Call Graph

Complete Backend Architecture



<https://github.com/bmarolleau/IBM-i-Application-Modernization-with-Bob>