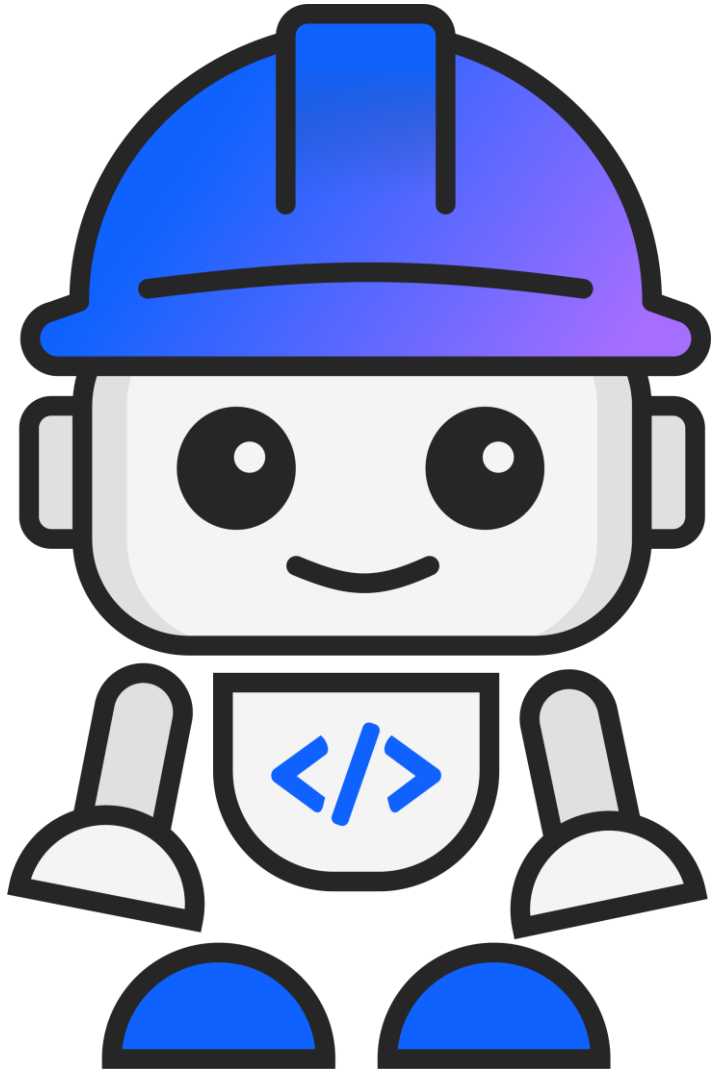
Your AI Development Partner for IBM i

IBM Bob + Premium Package for i

Webinar & live demo on IBM i



Agenda

60 minutes · one live demo on IBM i · your questions

01

5 min

The IBM i challenge

Skills, knowledge and modernization pressure

02

5 min

Meet IBM Bob

An AI development partner across the SDLC

03

10 min

Premium Package for i

What turns Bob into an IBM i specialist

04

30 min

Live demo: FLIGHT400

From a 1997 OPM application to modern code

05

10 min

Results & Q&A

Client stories, how to get started, and your questions

01

The IBM i challenge

Skills, knowledge and modernization pressure · 5 min

IBM i runs the business, but the pressure is growing

The platform is not the problem. The challenge is the code and the knowledge around it.

Why IBM i is still relevant

- ✓ **Runs the core business:** banking, insurance, distribution, manufacturing, healthcare, logistics
- ✓ **Reliable and secure by design:** high availability, integrated Db2 and security
- ✓ **Decades of proven business logic:** rules that work and are hard to replace
- ✓ **A platform with a future:** active IBM roadmap and regular new releases
- ✓ **Open to modern tools:** SQL, REST APIs, open source

...and why the pressure is growing

- **A shrinking pool of senior talent:** critical systems depend on a few experts
- **Tribal knowledge, not documentation:** the knowledge is in people's heads
- **Slow onboarding:** new hires take months to become productive on older code
- **Every change carries risk:** hidden dependencies put business continuity at stake
- **Growing technical debt:** fixed-format RPG, DDS and monolithic programs, with few tests
- **Hard to keep up:** the business asks for features, APIs and integrations faster than the team can deliver

Rewriting everything is too risky. Doing nothing is not an option.

Teams need a safer way to understand and evolve what they have.

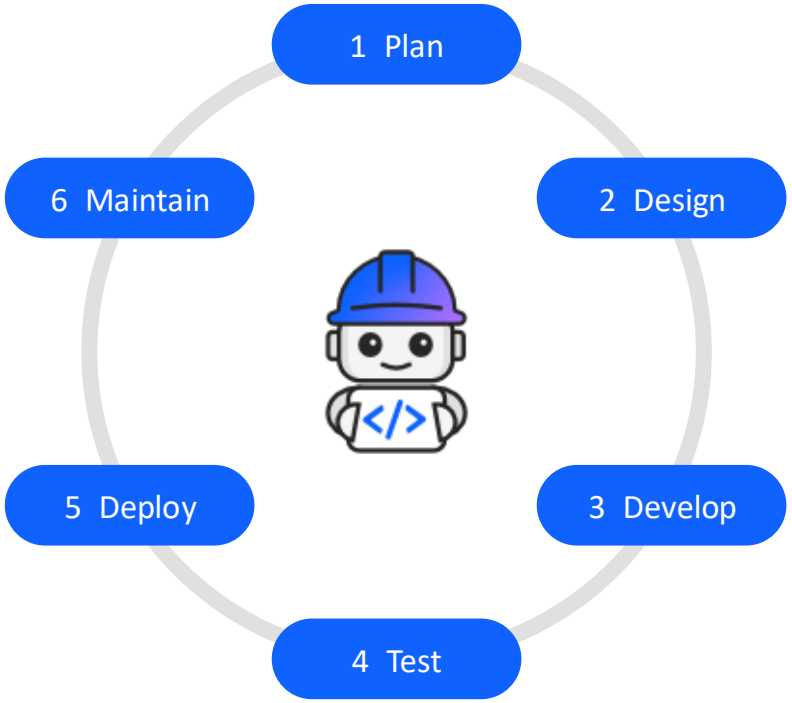
02

Meet IBM Bob

An AI development partner across the SDLC · 5 min

What is IBM Bob?

IBM Bob is an AI agent partner across the software development lifecycle. It helps teams understand, modernize, build, validate and govern software delivery.



1 **Understand your applications**
Explore unfamiliar code, explain business logic and document dependencies.

2 **Build and modernize**
Plan changes, generate and refactor code, and create tests.

3 **Work with confidence**
Review proposed changes, use integrated security checks and track the work performed.

150k IBMers using Bob, adopted organically

45% average productivity gains measured at IBM

40% of Bob was built by Bob itself

Why generic AI creates more risk

AI is promising, but the wrong tool in an IBM i environment can slow teams down and introduce risk.

What most AI tools provide...

- Minimal awareness of IBM i architecture or dependencies
- Developers spend time coaching the tool on basics
- Minimal governance, audit trail, or approval workflow
- Lack of system-level context, increasing defect risk
- Hard-to-measure impact on team velocity or onboarding

What Bob + Premium Package for i provides

- **Deep repository and dependency awareness**
- **RPG, CL, DDS, SQL, COBOL fluency**
- **Safe, repeatable modernization patterns**
- **Built-in governance and auditability**
- **Human approval gating at every step**

Your team doesn’t need another experiment or pilot.
They need a tool that reduces risk from day one.

03

IBM Bob Premium Package for i

What turns Bob into an IBM i specialist · 10 min

Base Bob is a generalist. Premium Package for i makes it an IBM i specialist.

Four additions, each closing a gap that generic AI leaves open on IBM i.

01

Works with your IBM i

One environment, no copy-paste between tools

Native IBM i connection

Direct SSH connection to IBM i to read, write, compile, run SQL, and test code

02

Works like an IBM i developer

An expert IBM i developer and database engineer, on demand

IBM i Developer Mode

Deep integration with your application technology and system

IBM i Database Mode

Analyzes, optimizes, and troubleshoots queries, with deep knowledge of SQL and legacy DDS

03

Applies IBM i expertise

Proven patterns and workflows, built for IBM i

Pre-built skills

Specialized skills that guide Bob through IBM i development tasks

Agentic workflows

Takes on complex modernization step by step, choosing direction based on existing state

RAG knowledge base

Grounds answers in authoritative IBM i documentation

04 NEW

Knows your application

Each change and question starts from facts about your system

Understand

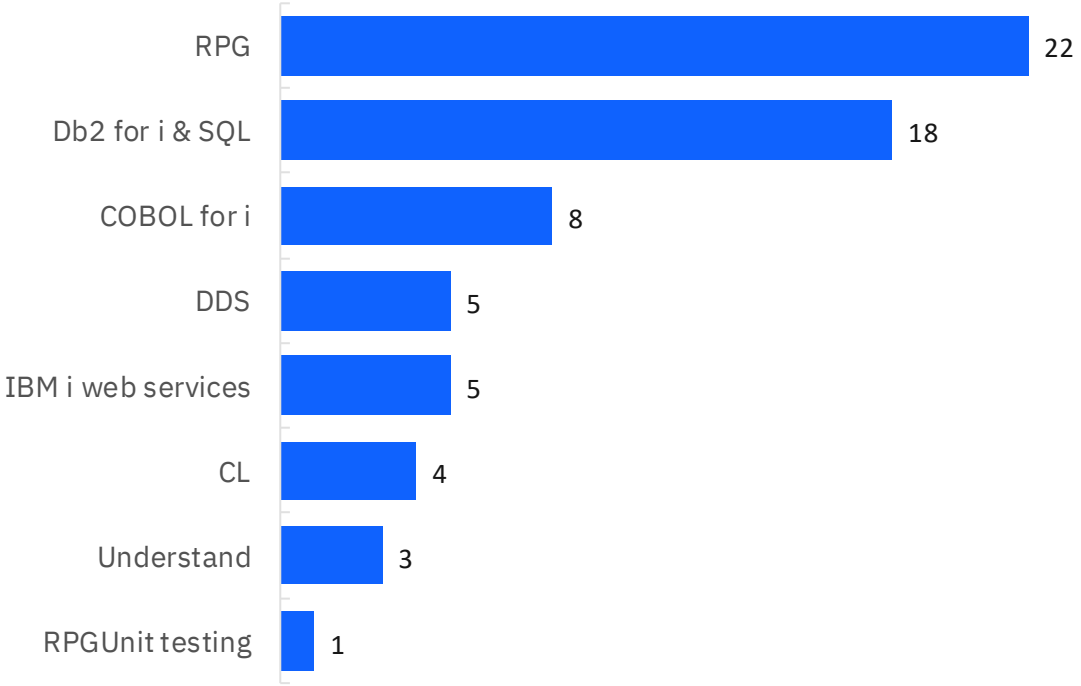
An accurate map of how every object in your application connects

Built-in IBM i expertise: skills, slash commands and tools

Bob doesn't start from zero — this knowledge ships with the Premium Package for i.

66

specialized IBM i skills, activated automatically based on context



4

slash commands

/init	Scan the workspace and write AGENTS.md project guidelines
/erd	Mermaid entity-relationship diagram from your tables
/review_SQL	Review SQL against Db2 for i best practices
/review_rpg	Code review of an RPG source member or stream file

29

IBM i tools Bob runs natively on your system

Read QSYS & IFS · Write QSYS & IFS · Run CL · Run SQL · Run PASE

Compile actions · RPGUnit · Doc search · Understand · Generate DDS

Source: Bob for i documentation (bob.ibm.com/docs). Understand tools and skills need the Understand component.

Agentic workflows: complex IBM i tasks, step by step

Guided multi-step workflows that collect your inputs, run the tools on IBM i and keep you in the loop.

1

RPG Modernization

Converts OPM and fixed-format ILE RPG to free-format RPG, compiles it and reports the changes.

Local · Library list

2

Business Rules Extraction

Turns RPG source into a business-readable Markdown report with Mermaid diagrams.

Local · IFS · Library list

3

RPGUnit Test Plan Creation

Analyzes your code and generates structured RPGUnit test plan documents.

Local · Library list

4

RPGUnit Test Suite Implementation

Implements the test suites from the plan, runs them and iterates until they pass.

Local · Library list

5

SQL Index Strategy Advisor

Analyzes Db2 for i performance data to recommend an optimized index strategy.

Library list

Human in the loop: Bob proposes, you approve — every diff, every compile, every index.

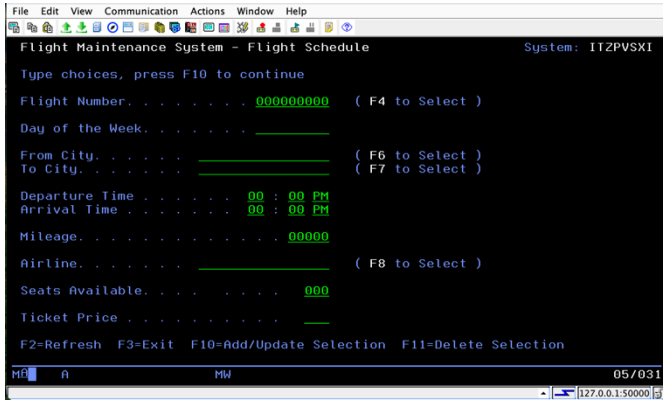
04 · Live demo

Modernizing FLIGHT400 with Bob

From a 1997 OPM application to modern code · 30 min

Live demo: modernizing FLIGHT400 with Bob

A classic IBM i airline reservation application — OPM RPG, DDS files and 5250 screens.



1997
the year the FRS000 logon program was compiled

~42
programs: 39 OPM, 3 ILE

15
physical files: FLIGHTS, ORDERS, CUSTOMERS...

6
ILE service programs exposing a REST layer

The scenario: you just inherited FLIGHT400. No documentation, and the developers who wrote it are gone.

FIVE CHAPTERS, ONE QUESTION EACH · 30 MIN · LIVE ON AN IBM i PARTITION

1 Dev + DB

Discover

What is this application made of?

/init · Understand dashboard · architecture overview · /erd

2 Dev

Modernize

Can I make this code readable?

RPG Modernization workflow on FRS409: OPM → free-format ILE, compiled

3 Dev

Evolve

Can I change it safely?

Add customer fields: impact analysis and plan, then prepared diffs and 5250 result

4 DB

Optimize

Why is this query slow?

/review_SQL on a booking query, then SQL Index Strategy Advisor

5 Dev

Ask

What's happening on my system?

Plain-English questions: top CPU jobs, programs not recompiled in 5 years

Bonus: green screen → web app. Bob reads the 5250 display file and RPG logic, then generates a React + IBM Carbon app running on IBM i PASE.

05

Results & next steps

Customer results, how to get started, your questions · 10 min

Client spotlight: MEDHOST

Healthcare software provider · mission-critical hospital applications on IBM i and IBM Power

THE CHALLENGE

Decades of RPG business logic across several generations of code. Fewer developers know the older RPG syntax, and every change needs heavy dependency and impact analysis, in systems hospitals rely on around the clock.

WHAT THEY DID WITH BOB

Explained complex RPG programs, ran impact analysis with cross-reference data to avoid missed dependencies, converted code to free-form RPG and SQL-based data access, and generated documentation for new developers.

WHAT YOU SAW IN THE DEMO

The same three moves: map the application (Discover), convert to free-form (Modernize), check the impact before a change (Evolve).

Up to 50%

less manual coding effort across modernization projects

- ✓ Rapid analysis of complex RPG logic and dependencies
- ✓ Free-form RPG and SQL-based data access, with less risk
- ✓ Faster ramp-up for new developers

> *The ability to analyze complex RPG applications and reduce manual coding effort by up to 50% has significantly improved our development productivity while minimizing risk in our mission-critical healthcare systems.*
>
> Michael Bowen, Senior Vice President of Technology, MEDHOST

MEDHOST took part in the IBM Bob preview program. Client examples illustrate how those clients have used IBM products and the results they may have achieved. Actual results may vary.

IBM i teams already working with Bob

Real use cases from IBM i clients, and the Premium Package for i capabilities that cover them today.

Client	What they used Bob for	Reported result	Premium Package for i today
Jack Henry Banking technology	Understand and document decades of RPG, compare program versions, improve secure coding	25%+ developer productivity	IBM i Developer mode · RPG skills · /review_rpg
MEDHOST Healthcare software · US	Impact analysis, free-form RPG conversion, data access moved to SQL	Up to 50% less manual coding	Understand · RPG Modernization workflow · Db2 skills
M.R. Williams Distribution · US	Trace field logic in a report, understand the calculation, document the issue	18× faster: 6 hours → 20 minutes	IBM i Developer mode · RPG skills
Markerstudy Insurance · UK	Assess a 6-million-line RPG estate and build a modernization roadmap	6M lines analyzed in 4 weeks	Understand · Business Rules Extraction
NI+C Enterprise IT · Japan	Reverse-engineer 10+ year-old RPG into detailed design documents	Accurate design docs with Mermaid diagrams	Business Rules Extraction · /erd
Innovative Software Solutions Software	Document 90,000+ line programs for developers new to IBM i	Documentation handed to new developers	Business Rules Extraction · RPG skills
Heartland Co-op Agriculture · US	Understand RPG and IoT integrations, onboard new developers faster	Est. 60%+ productivity for new developers	IBM i RAG knowledge base · RPG skills
Carreras Grupo Logístico Logistics	Explain program logic, generate documentation, refactor across applications	Faster, lower-risk modernization (pilot)	RPG skills · Business Rules Extraction

Most stories come from the IBM Bob preview program on IBM i; the last column maps each use case to today's Premium Package for i. Client examples illustrate how those clients have used IBM products and the results they may have achieved. Actual results may vary.

How to get started

Four ways to keep going after today's session.

01

Try Bob

Start a free trial, then add the Premium Package for i to your plan.

- bob.ibm.com

02

Replay the demo

The FLIGHT400 lab is public: same application, same prompts, step by step.

- github.com/bmarolleau/IBM-i-Application-Modernization-with-Bob

03

Read the docs

Modes, skills, workflows and Understand, documented with examples.

- bob.ibm.com/docs › Premium packages › Bob for i

04

Start a pilot

Pick one real application and one painful task, then measure the result.

- Talk to us after the session

Learn more about IBM Bob

Scan the code or go to ibm.biz/bob-web

Thank you — questions?

Start free IBM Bob trial

Upcoming Event

Join us for:
CIPS & IBM Virtual Hackathon

- Date: November 24, 2026
- Time: 10 AM – 3 PM ET
- Location: Virtual
- Register now in teams of 2-3 individuals
- Review the official rules and eligibility requirements

Appendix · Backup for Q&A

Technical deep dive

Two IBM i modes: a senior IBM i developer and a Db2 for i expert

Recommended over the generic Agent mode for all IBM i work — and customizable with your own team rules.

IBM i Developer mode

Explain, generate, compile, test and document code on IBM i.

OPM RPG | ILE RPG | CL | DDS | COBOL | SQL

USE CASES

- Explain and document complex logic and business rules
- Write or refactor source locally or on IBM i (QSYS or IFS)
- Compile with CL commands or custom build tools
- Convert fixed-format RPG to free-format, plan modernization
- Generate, run and fix RPGUnit test suites

Context injected automatically: Connection, OS version & CCSID, library lists, AGENTS.md guidelines

IBM i Database mode

Generate, modernize, tune and review SQL within Db2 for i.

Db2 for i | SQL services | DDS → DDL | Indexes

USE CASES

- Review SQL for correctness, performance and security
- Understand complex database schemas (ERD)
- Analyze query performance and index strategy

Context injected automatically: Active SQL job: naming, current schema, library list, isolation level

Premium Package for i - Pilot guide *(an inspiration, not comprehensive)*

USE CASE	PILOT TASK & OUTCOME	KEY FEATURES[1]	CLIENT PROOF
01 Understand and document complex applications	Point Bob at an undocumented, business-critical RPG program. Ask for an explanation and documentation. Output would be well-documented business logic, architecture, data flow, etc in a shareable document	• Business Rules Extraction Workflow • /erd command • RPG, CL, DDS, COBOL skills for understanding	**NI+C** - explained 10+ year-old, unmodified RPG
02 Onboard new developers faster	Pair a newer developer with Bob on an unfamiliar application. Have them learn the application and trace one business process end to end. Shorten time to become productive and less questions escalated to senior developers	• IBM i RAG knowledge base • /review_SQL • RPG code review skill • RPG, CL, DDS, COBOL skills for understanding	**Heartland Co-op** - est. 60%+ productivity gain for new developers
03 Refactor legacy code	Run impact analysis on a monolithic program, turn it to modular program; field length extension on column names in Db2 for i. Output would be a more maintainable and modern application.	• RPG OPM, refactor, conversion skills • DDS skills • COBOL OPM skills • Db2 for i and SQL skills	**MEDHOST** — up to 50% less manual coding effort
04 Convert fixed-form to free-form RPG	End-to-end conversion of a fixed-form RPG II/ III or ILE member to free-form. Output would be the same business logic running with free-form RPG	• RPG Modernization workflow • RPG ILE, free form, OPM skills • DDS skills • CL skills • Db2 for i and SQL skills	**MEDHOST** — converts programs to free-form RPG as part of its modernization workflow
05 Generate and execute a unit test plan	Have Bob build a test plan and RPGUnit tests for a critical procedure. Outcome would be increased unit test coverage of an application	• RPG Unit Test skills • RPGUnit Test Plan Creation workflow • RPGUnit Test Suite Implementation workflow	*Shown in the FLIGHT400 hands-on lab*
06 Generate new code	Describe a new program or service-program procedure. Give Bob the DDS and copybooks it should build on. Outcome would be faster-time-to-value for new features and ideas.	• RPG ile and free format skills • CL, DDS skills • Db2 for i and SQL skills	**IBM Client Zero** — 45% improved developer productivity

1: This serves possibility and does not imply Bob will behave this way. And this list of features is just a subset, for the ground truth, please visit Bob doc site

Continuous innovation since GA - from modernizing RPG to future-proofing the IBM i platform

Start with the code you need to modernize, grow into the platform that supports your business

1H 2026 · Delivered

2H 2026 · Now[1]

2027 and beyond · Directional[2]

APPLICATIONS

Modernize your RPG applications

Reduce the cost and risk of changing decades-old code.

- Native IBM i connection
- RPG modernization skills
- Agentic modernization workflows
- RAG with IBM i documentation

THE IBM i ESTATE

Beyond RPG - and beyond the easy applications

Broader coverage. Deeper complexity. Modern interfaces.

- Support COBOL for i, alongside RPG
- Build out application intelligence for complex apps with Understand — dependency insight across your application
- Adopt native REST APIs easier
- Integrate with SQL services and deeper Db2 tooling
- More deterministic tools

THE PLATFORM

Future-proof the platform underneath them

Protect uptime, stay current, and take on new workloads.

- Increase application resilience with Db2 Mirror for i and IASP
- Assist with OS upgrade assistance
- Assist with porting new workloads onto IBM i
- Expand to end-to-end SDLC with Git and CI/CD
- Conduct functional and green-screen testing

[1] Not all items have been delivered; for final delivery, please check the Bob documentation site

[2] Directional for now, subject to change