

*A Day in the Life of IBM Java Software  
Developers*



# Introductions

# Let's start with some fun...Liberty Bikes



A retro, light-bike game that is made up of Java microservices and written with MicroProfile; avoid obstacles and player paths!!!

Open Liberty

The screenshot shows the game interface with a track, obstacles, and player paths. A central banner reads "WINNER! Wally 1". To the right, there are two panels: "PLAYERS" and "LEADERBOARD".

LIBERTY BIKES		
PLAYERS	Wally 1	Wally 2
	Hal 3	Hal 4

Rank	Player
1	Nimrah
2	Sachi
3	123
4	rebecca0510
5	dash
6	Lisa
7	Kathryn
8	Veronica
9	Isabel
10	Aaa

At the bottom right, a button says "QUEUE IN 4..."

<https://lb.hypernerve.net>



# Working in Software Development at IBM

# Where we fit within IBM

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- *Introduction to where software development fits within IBM*

# Developer != Developer

- Front-end developer (UI)
- Back-end developer
- Tools (compilers, IDE, Java)
- Testing
- Performance engineering
- Technical writing
- Customer support
- Architect
- Product Management
- Consultant
- Designer
- Seller
- Marketing
- Communications
- HR
- Management

## The tools we use

- Java, Bash, Python
- Eclipse, IntelliJ, VS Code (IDEs)
- Git
- Slack
- Outlook
- Webex
- Mac, Linux, Windows
- Agile
- Salesforce (customer support)
- Maven & Gradle
- Homegrown





# Interview





Tell us a little bit about how you came  
to IBM and your path once there.

# Developer's Journey into IBM

- *Developers to talk about how they landed in IBM*



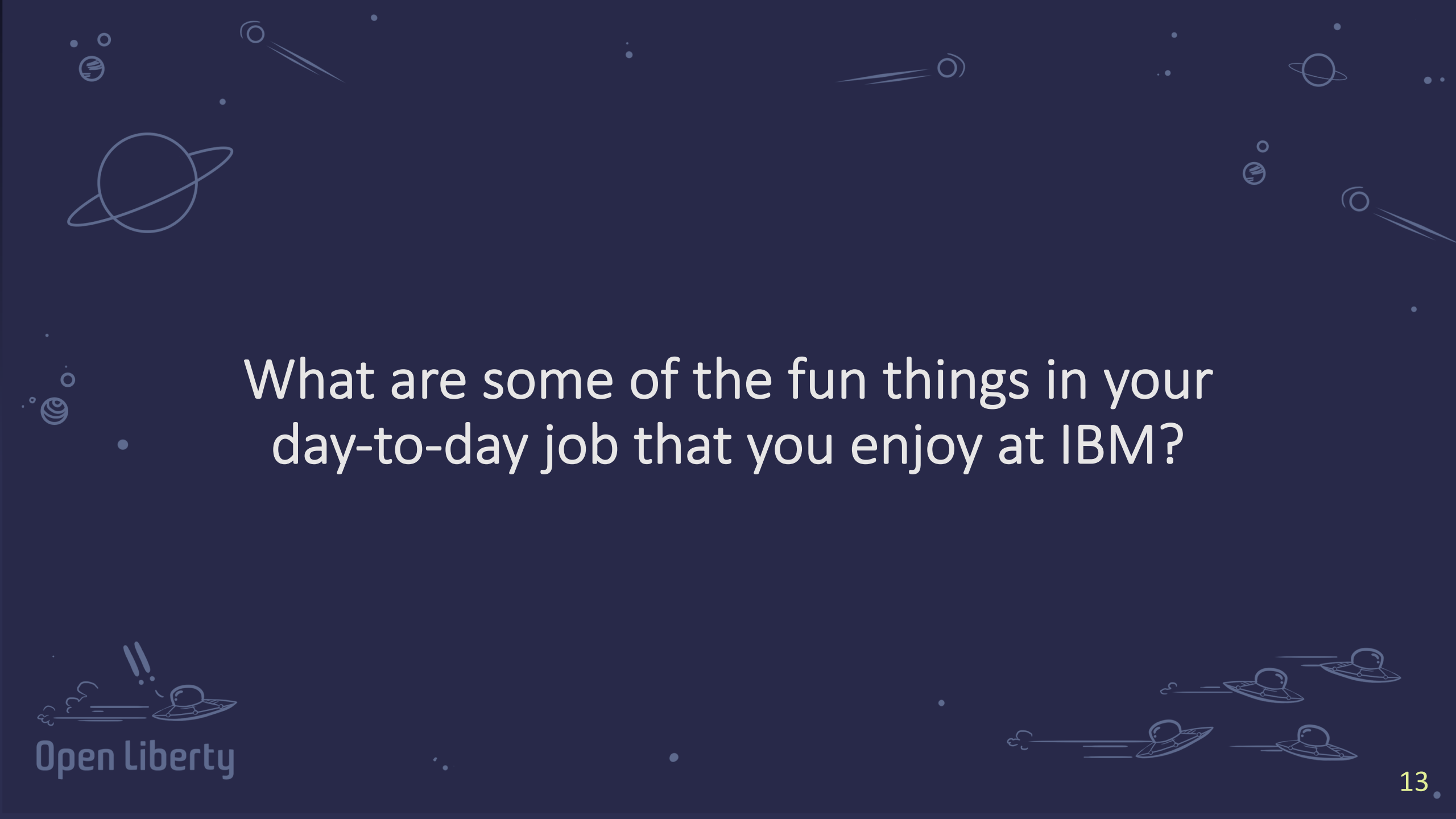


Tell us a little bit about what your work day looks like.

# A Normal Work Day

*Developers to share how their work days  
look like ...*





What are some of the fun things in your  
day-to-day job that you enjoy at IBM?

# Besides the cool technology, what makes working at IBM Exciting?!?

- Developer Advocacy:
  - Conferences
  - College interactions
  - Talks
  - Workshops
  - User groups
- Liberty Bikes - an organization, contest winner
- Patenting : Mentoring, invention review board. Chance to earn extra \$\$\$
- Lab Advocacy - working directly with customers
  - Learning new technologies with time for education
  - Flexible schedule / Work life balance / Wellbeing programs
  - Toastmasters
  - Jumpstart
  - Lunch disc golf, Free Coffee/Snacks, Organizational events in the Summer, Fall and Holiday season
  - BRGs (e.g. Black, Environment, Hispanic, LGBT, New Hire Network, Veteran, Work & Life Integration, Women in Technology)






# What we work on

Give us some background  
on what you work on.



# Developer's favorite "things" about their work

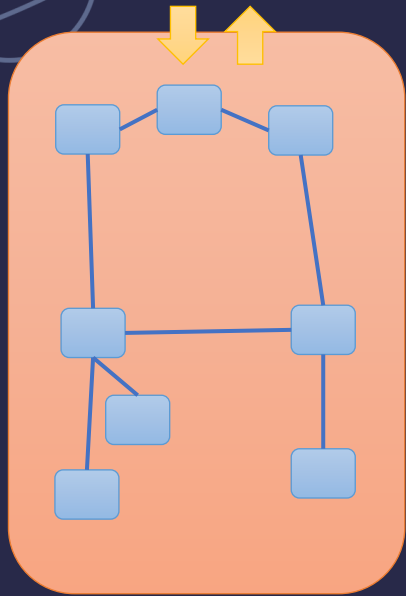
- *Developers to talk about what they work on and what they like about it*



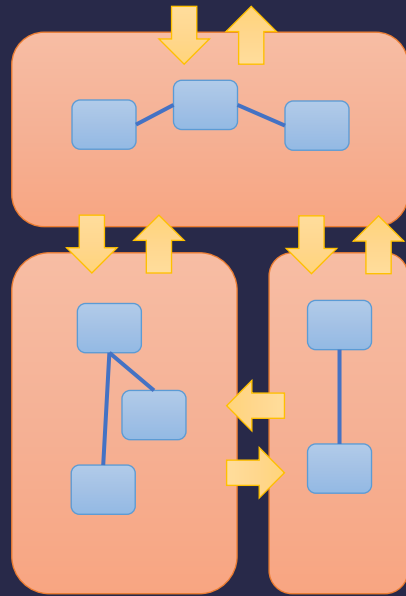
Tell us how the marketplace  
and technology changed over time.



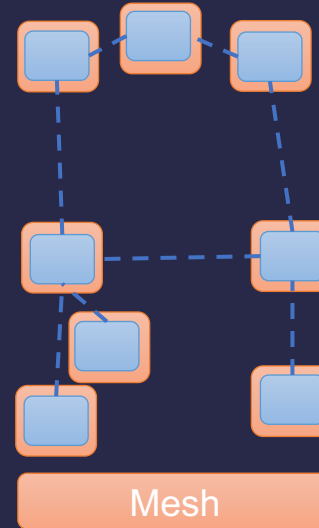
# Over time... Customers discovered a Spectrum of Architecture Styles...



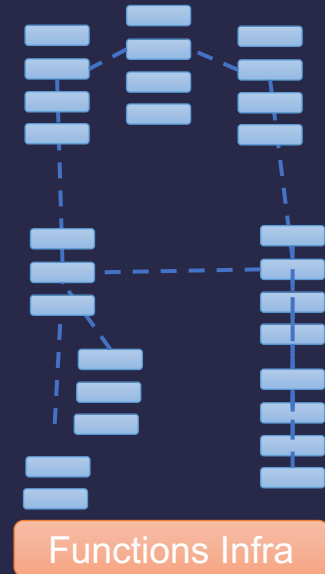
Monolith



"Macroservices"

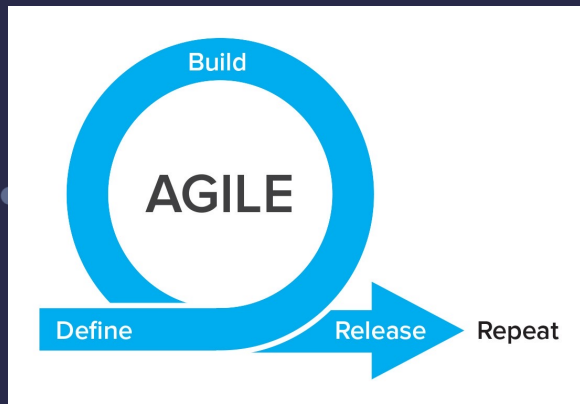


Microservices



Functions

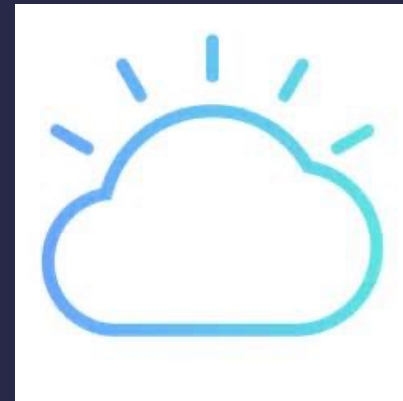
...They also demanded an Agile runtime built for DevOps, and fast deployment to the Cloud



+



+





The world demands Open Source



[Get Started](#)[Guides](#)[Docs](#)[Support](#)[Blog](#)

openliberty.io

# Open Liberty™

An IBM Open Source Project

**A lightweight open framework for building fast and efficient cloud-native Java microservices.**

Build cloud-native apps and microservices while running only what you need. Open Liberty™ is the most flexible server runtime available to Java™ developers in this solar system.

[Get Open Liberty](#)





# A fully open Java stack

- *Discuss how we have a fully open Java stack these days*
- *It's about collaboration!*

APIs



Runtimes or Frameworks



SDK

IBM Semeru Runtimes

JVM

OpenJ9

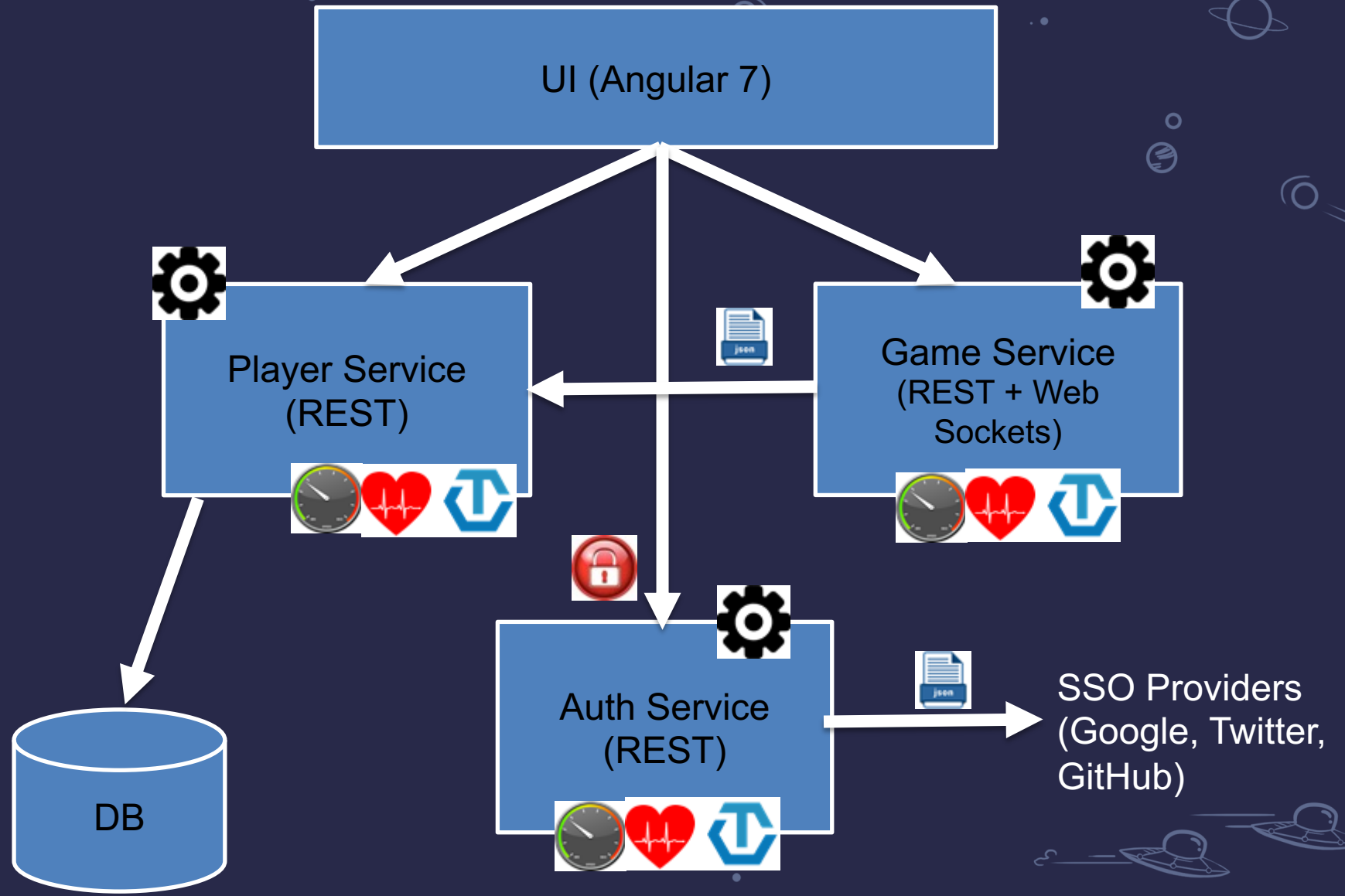
OpenJDK





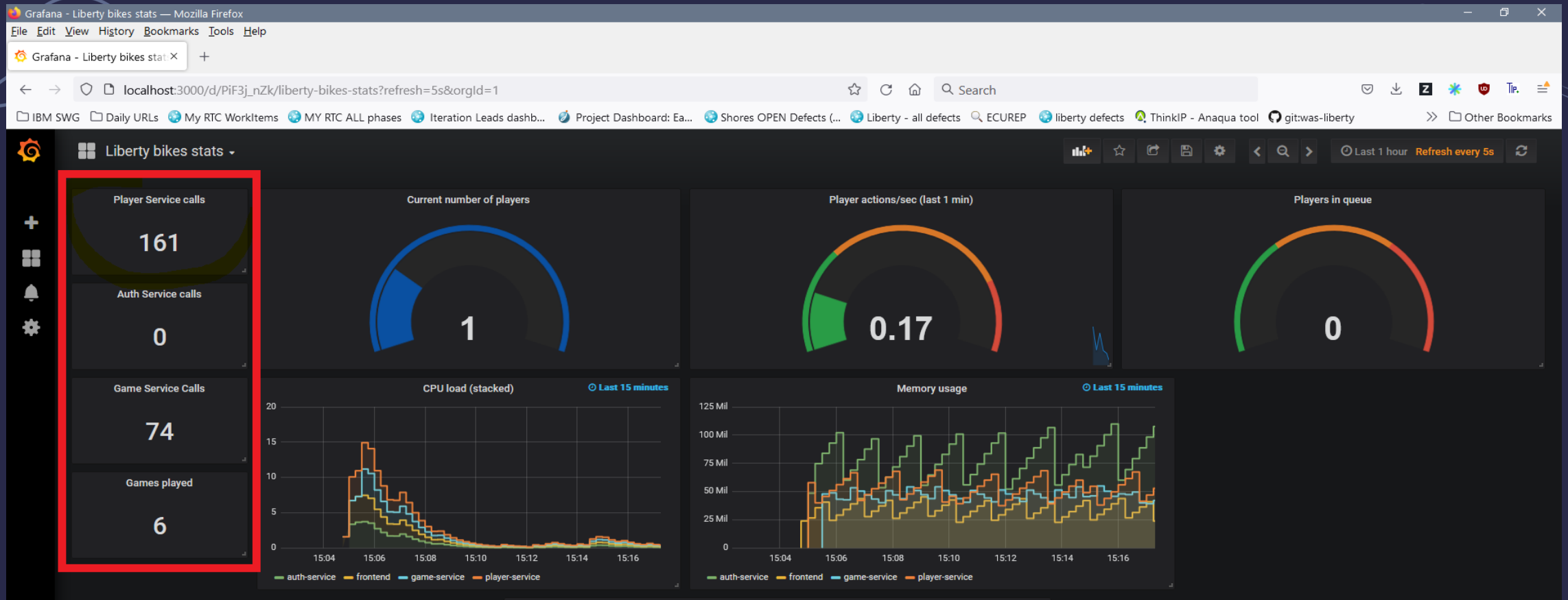
# Tell us more about Liberty Bikes

# Liberty Bikes



Prometheus for metric collection and Grafana for metric visualization

# REST HTTP Traffic for Liberty Bikes



**1 player and 3 bots**

**Games Played = 6**

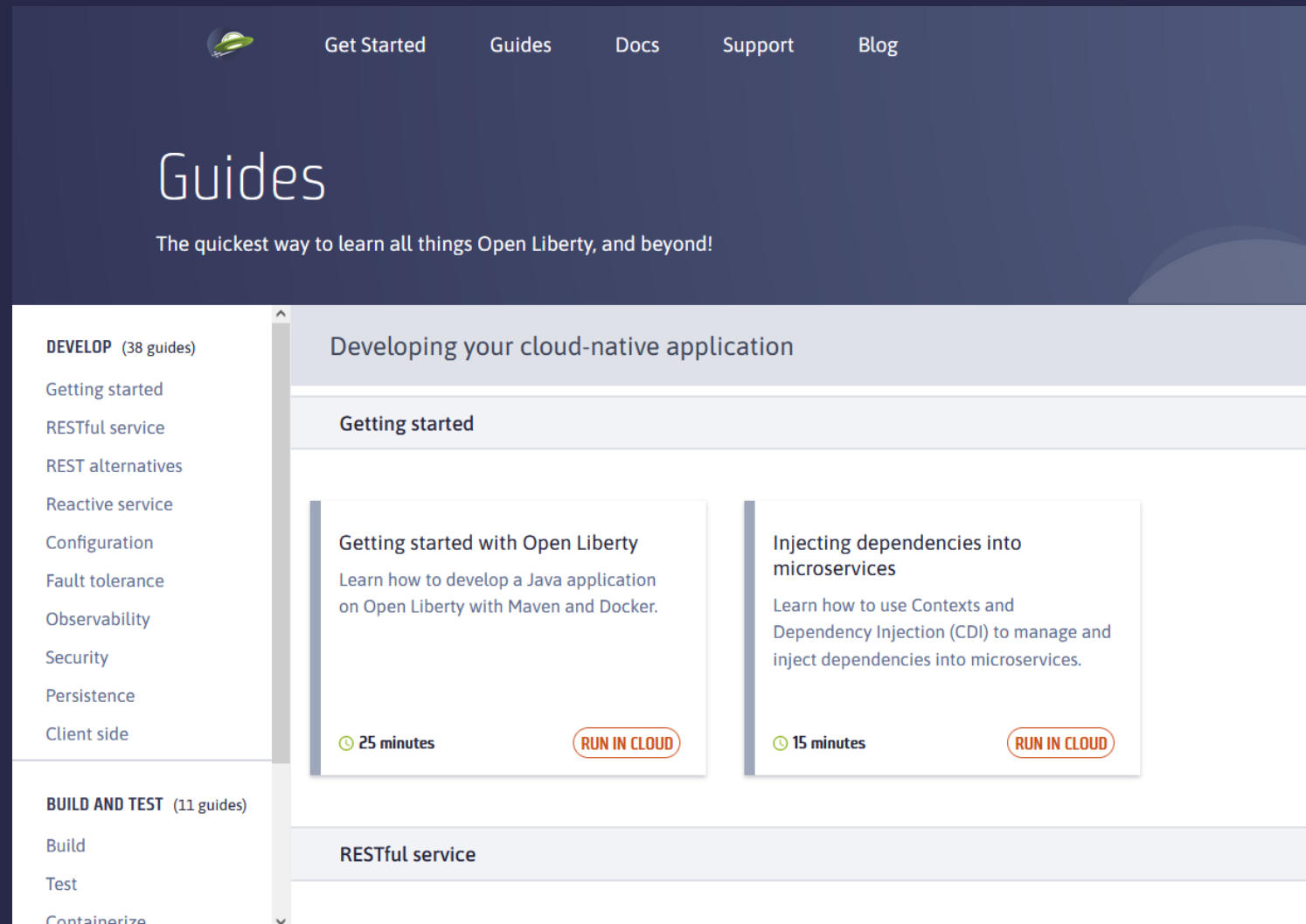
**Player Service calls = 161**

**Game Service calls = 74**

Open Liberty

# Open Liberty guides – A great learning resource!

60+ Guides available at <https://openliberty.io/guides/>



The screenshot shows the Open Liberty Guides website. The header includes a navigation bar with links: Get Started, Guides, Docs, Support, and Blog. The main heading is "Guides" with the subtitle "The quickest way to learn all things Open Liberty, and beyond!". A left sidebar lists categories: DEVELOP (38 guides) and BUILD AND TEST (11 guides). The main content area is titled "Developing your cloud-native application" and "Getting started". It features two guide cards: "Getting started with Open Liberty" (25 minutes) and "Injecting dependencies into microservices" (15 minutes). Both cards have a "RUN IN CLOUD" button. The bottom of the sidebar shows "BUILD AND TEST" guides: Build, Test, and Containerize.

Get Started Guides Docs Support Blog

## Guides

The quickest way to learn all things Open Liberty, and beyond!

**DEVELOP** (38 guides)

- Getting started
- RESTful service
- REST alternatives
- Reactive service
- Configuration
- Fault tolerance
- Observability
- Security
- Persistence
- Client side

**BUILD AND TEST** (11 guides)

- Build
- Test
- Containerize

### Developing your cloud-native application

#### Getting started

##### Getting started with Open Liberty

Learn how to develop a Java application on Open Liberty with Maven and Docker.

🕒 25 minutes [RUN IN CLOUD](#)

##### Injecting dependencies into microservices

Learn how to use Contexts and Dependency Injection (CDI) to manage and inject dependencies into microservices.

🕒 15 minutes [RUN IN CLOUD](#)

#### RESTful service

# REST guide demo / walk through



## Creating a RESTful web service

Learn how to create a RESTful service with Jakarta Restful Web Services, JSON-B, and Open Liberty.

🕒 30 minutes


**RUN IN CLOUD**

<https://openliberty.io/guides/rest-intro.html>

The background features three large, overlapping blue circles. The top half of the image is a dark blue space-themed background with white line-art illustrations of planets, rings, and comets. The bottom half is a dark blue background with white line-art illustrations of spaceships and a comet. A white horizontal band runs across the middle of the image.

# Closing

# Getting plugged into IBM



Dreamer.  
Thinker.  
Problem Solver.  
Change Agent.  
**Developer.**



- *HR information and links for students that are interested in opportunities at IBM*




# Thanks for listening to our talk today!!!

*Contact info ...*







# Q & A