

# **Ballerina Student Engagement Program**

**Scope: Concept Note** 

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#### WSO2 LLC

**Program Link:** Ballerina University Program

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### **Program Title**

Empowering Next-Generation Developers: A University Engagement Program for Modern Software Development

#### **Program Overview**

This initiative focuses on establishing a strategic partnership with universities to boost the practical skills of students in the ever-changing tech landscape. The heart of this program lies in providing hands-on experience through tailored workshops, open-source projects, and academic research, aiming to blend theoretical knowledge with real-world skills. This approach prepares students for future challenges in software development, especially in areas like microservices, cloud-native development, and API integrations. At the core of our practical training is the use of <u>Ballerina</u>, a programming language specifically designed for creating scalable enterprise-level integration solutions effortlessly.

#### **Program Objectives**

- To equip students with hands-on experience in API integration, microservices architecture, and event-driven architectures, ensuring a comprehensive understanding and skill set in these critical areas.
- To encourage exploring a range of technologies and tools, driving forward innovation and technology.
- To foster a vibrant Ballerina community within academia that focuses on software development, encouraging the sharing of knowledge, collaboration on projects, and contributions to open-source initiatives.



#### **Program Outline**

### Guest Lectures/Tech Talks 🎤

- **Duration:** Guest lectures 1-1.5 hours / Tech talks 30-45 minutes
- **Format:** Interactive presentation from creators of Ballerina focused on aforementioned areas.
- Mode: Virtual/Physical

## Workshops X

- **Duration:** 2-4 hours
- Format: Introduction to the fundamentals and advanced concepts in the aforementioned areas followed by a hands-on session and a reward challenge.
- Mode: Virtual/Physical
- Rewards and recognition:
  - Certificate of Participation: All attendees will receive a Certificate of Participation, acknowledging their dedication to enhancing their technological expertise.
  - Reward Challenge Swags: Participants who complete the reward challenge will receive exclusive Ballerina swags, such as t-shirts, stickers, and notebooks, as a special token of appreciation for their effort and creativity.

## Hackathons **Y**

- **Duration:** Typically 24 hours (subject to adjustment based on requirements)
- Format: Teams address real-world challenges in areas such as API integrations, microservices, and beyond by creatively applying Ballerina to innovate and effectively utilize the language's capabilities.
- Mode: Virtual (Can be physical, depending on the region)
- Rewards and recognition:
  - Prizes for Winners: Winning teams receive cash prizes, exclusive Ballerina swags, and vouchers for Online Certifications celebrating their outstanding solutions.



- Certificate of Participation: All attendees will receive a Certificate of Participation, recognizing their innovation, teamwork, and problem-solving abilities.
- Community Spotlight: Exceptional projects will be highlighted on the Ballerina website and social media channels, giving teams recognition within the broader tech community.

#### Open-Source Projects !! </>

- **Duration:** 2-12 weeks
- Format: Collaborative development on open-source projects using the Ballerina programming language, including the Ballerina ecosystem.
  - Level 1: Contribution to Ballerina samples, tutorials, case studies, and use cases
  - Level 2: Contributions to the Ballerina ecosystem, specifically to connectors
  - Level 3: Contributions to real-world applications using Ballerina.

#### • Rewards and recognition:

- Certificate of Contribution: Significant contributors to open-source projects will receive certificates and vouchers for Online Certifications, highlighting their practical involvement and dedication.
- Community Spotlight: Exceptional contributions will be showcased within the Ballerina community, including the newsletter, social media highlights, and features on the official Ballerina website.

### Research Projects 📚

- **Duration:** 6 months to 1 year
- Format:
  - **Option1:** Use Ballerina to solve research problems
  - o Option 2: Solve research problems prevalent in the Ballerina architecture

#### • Rewards and recognition:

- Publication Support: Outstanding research projects may receive support for publication in relevant academic or industry journals, amplifying the impact of their work.
- Certificate of Innovation: Researchers who demonstrate innovative use of



Ballerina or contribute new insights to the language or its applications will be recognized with a Certificate of Innovation.

### Ballerina in Teaching

• **Duration:** 1 semester

- Format: Integrate Ballerina as a teaching language in subjects related to the aforementioned areas
- Mode: Virtual/Physical
- Rewards and recognition:
  - Community Spotlight: Students demonstrating exceptional use of Ballerina in their coursework or projects will be showcased within the Ballerina social media highlights.

#### Online Certifications 🏅



- **Duration:** 5-10 hours
- Format: Structured learning evaluated through an online proctored exam focused on the aforementioned areas.
- Mode: Online
- Rewards and recognition:
  - o Certificate of Completion: Upon completion of the course, a Certificate of Completion will be issued, endorsing the student's Ballerina proficiency.
  - o Community Spotlight: Certified individuals may be featured in program newsletters and on social media, celebrating their accomplishments and expertise.

#### Costs

This program is offered at no cost to the institution and the students.

#### **Benefits**

To the students:

• Equips the students with industry-relevant skills and knowledge, increasing their



- employability.
- Engaging in open-source and research projects encourages teamwork and innovation, key skills sought after by employers.
- Rewards and recognition earned through the program enhance the professional portfolio, showcasing achievement and commitment.
- An opportunity to engage with peers and industry professionals, building a network of contacts and mentors in the tech industry.

#### To the Ballerina Community:

- Expanding the user base and developer community around Ballerina.
- Direct engagement with the next generation of developers offers valuable insights into how Ballerina is used and areas for enhancement.
- Collaborating with universities strengthens the bond between academic learning and industry needs, ensuring the relevance of Ballerina in addressing current and future tech challenges.