

Oracle Academy Education Bytes *Oracle Red Bull Racing*

Oracle Academy has teamed up with Oracle Red Bull Racing to launch three new Education Bytes that immerse students in the exciting, fast-paced world of Formula 1® racing while building real-world technology skills.



Oracle Academy's collaboration with Oracle Red Bull Racing transforms technology education into immersive, high-energy learning experiences through these hands-on Education Bytes. Learners build practical programming, game development, cloud, and data analytics skills using industry-relevant technologies, connecting academic learning to real-world challenges faced by professional developers, engineers, and data analysts.

Oracle Academy Education Bytes

Oracle Academy Education Bytes are short, flexible learning modules that help learners embrace new technology concepts and enhance existing knowledge and skills, problem solving, creativity, and learning retention. They can be used as an enhancement to Oracle Academy curriculum or as stand-alone learning resources.



Reactions Tester Game

Build. Race. Analyze.

Inspired by the lightning-fast reflexes required at race starts, this activity challenges students to build their own game from the ground up, helping them experience the thrill of coding, creativity, and game design while developing valuable programming skills used in real-world software development.

Using Java and Greenfoot, students design interactive experiences while learning programming foundations—creating game mechanics, building responsive controls, and exploring how professional developers structure and optimize software applications.

Test Track

Code at racing speed.

This immersive learning journey puts students in a fast-paced driver's seat. Across five progressive modules, learners combine coding, game development, data engineering, and analytics to create a complete racing experience powered by modern Oracle technologies. They use Java and Greenfoot to create a fully functional racing game, learning how to design game worlds, build objects, and control movement with precision. They then enhance their game with animations, sound effects, and realistic physics, bringing their Formula 1-inspired experience to life. As the project progresses, they delve into deeper technical concepts, implementing timing systems, checkpoint logic, and real-time data display, using Java libraries to track performance and simulate real racing analytics.

Next, they capture user input, calculate performance metrics, and write structured data files, learning how applications persist and manage information. They also explore testing and validation, just like real-world software development workflows. Finally, they use Oracle APEX to transform their game data into a professional web application, using SQL, databases, and interactive dashboards to visualize race performance. They build reports, charts, and upload workflows—turning raw data into meaningful insights, just like a real racing team analyzing driver performance.



Dashboard

From data to decisions.

In this advanced learning experience, students build and deploy a professional-grade racing telemetry dashboard on Oracle Cloud Infrastructure that simulates the same data-driven environments used by Formula 1 teams—demonstrating how high-performance cloud platforms support real-time decision-making in environments where speed, accuracy, and reliability are critical.

Through guided steps, students work with an impressive technology stack to provision cloud resources, configure networks and firewalls, deploy applications, and connect multiple services. What makes this workshop truly exciting? Data.

Students create and stream live real telemetry data—such as speed, throttle, braking, gear selection, G-forces, and tire behavior—and experience the excitement of watching it update in real time on a professional-grade dashboard. This mirrors how Formula 1 teams analyze performance, optimize strategy, and make split-second decisions during races.

Oracle Academy, Oracle's global philanthropic educational program, is open to academic institutions and their educators to help advance student technology education, skills, innovation, and inclusion. We offer free teaching and learning resources — including curriculum, cloud, software, and more — that help develop key knowledge, hands-on practice, and career-relevant skills.

Join Oracle Academy today and access all the benefits of membership.

Learn more about Oracle Academy Education Bytes: Oracle Red Bull Racing at academy.oracle.com/redbullracing



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