

## Workshops

# Experience Computer Science in a Fun and Engaging Way

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## Why Oracle Academy Workshops?

Oracle Academy Workshops are designed to make first experiences with computing fun and engaging, while still leveraging best academic curriculum practices like project-based learning and offering educators methods for assessment.



Oracle Academy Workshops are best used by educators in one of three ways:

1. to introduce students, including students as young as late primary school ages, to computer science in a fun and engaging way;
2. to incorporate exposure to computer science into the teaching of other academic disciplines; and
3. to offer a limited introduction to computer science to students via extra-curricular programs and/or workshop experiences.

Oracle Academy Workshops and related educator training are available to Individual and Institutional members.

[Learn about Training Opportunities](#) >[View upcoming training events in your area](#) >

Oracle Academy Workshops are also available to Individual and Institutional members in Workshop in a Box formats to facilitate the delivery of introductory computer science workshops by parents, volunteers, computer club sponsors and educators who may not specialize in teaching computer science.

[Learn about Workshop in a Box](#) >

Programming the Finch Robot in Greenfoot

## Getting Started with Java Using Alice

This workshop is designed for students with little or no programming experience and teaches basic Java programming concepts through developing 3-D Animations in Alice 3.1. Alice is a free, educational, introductory Java development environment created at Carnegie Mellon University. While it is suitable for all beginning learners, it can be especially engaging for girls. Students will have fun creating animated stories and games using objects and characters from a rich gallery of 3-D models.



■ [Learn more at Alice.org](https://alice.org)

The Alice platform is currently supported in 24 languages, including English, Arabic, Russian, Spanish, and Turkish.

[View the full course description and objectives](#) >

### Target Audiences

#### Educators

- Secondary school teachers who teach computer programming
- Secondary school teachers who seek to incorporate computing into their curriculum and awaken students' interest in computer science
- May also be suitable for upper-primary school teachers, club leaders, and other general educators who wish to incorporate computer science into their curriculum

#### Students

- Students who wish to begin to learn about object-oriented programming and Java and to learn how to create animations using fun and engaging tools
- While Alice is suitable for beginning learners of any age, our experience shows it is most engaging for upper primary and early secondary school students

#### Others

- Parents, volunteers, computer club sponsors and educators who may not specialize in teaching computer science who wish to deliver a workshop in their community
- [Learn about Alice Workshops in a Box](#)

### Educator Prerequisites

- None

### Duration

- Recommended classroom instruction time: up to 8 hours
- Professional education credit hours for educators who complete Oracle Academy training: 8

### Suggested Next Courses

## Creating Java Programs with Greenfoot

This workshop engages students who understand basic programming concepts to create 2-D games using Java. Greenfoot is a free educational Java development environment (JDE) created at the University of Kent. Students will learn detailed object-oriented programming terminology and concepts while creating 2-D games in a fun and interactive environment.



■ [Learn more at Greenfoot.org](#)

[View the full course description and objectives](#) >

### Target Audiences

#### Educators

- Secondary school teachers who teach computer programming
- Secondary school teachers who seek to incorporate computing into their curriculum and awaken students' interest in computer science
- May also be suitable for club leaders and other general educators who wish to incorporate computer science into their curriculum

#### Students

- Students who wish start or further their Java programming experience and learn how to create 2-D games in a fun and interactive environment
- While Greenfoot is suitable for beginning learners, our experience shows it is most engaging for secondary school and early post-secondary students

#### Others

- Parents, volunteers, computer club sponsors and educators who wish to deliver a workshop in their community
- [Learn about Greenfoot Workshops in a Box](#)

### Educator Prerequisites

#### Required

- Basic understanding of at least one programming language

#### Suggested

- Oracle Academy Workshop: Getting Started with Java Using Alice

### Duration

- Recommended classroom instruction time: up to 16 hours
- Professional education credit hours for educators who complete Oracle Academy training: 16

### Suggested Next Courses

- Oracle Academy Course: Java Fundamentals

This workshop engages students who understand basic programming concepts to program a 2-D interface using Java to make the Finch Robot interactive using its light, proximity, and temperature sensors. Finch is a small robot designed by BirdBrain Technologies to inspire and delight students learning computer science by providing them a tangible and physical representation of their code. We recommend students take the Creating Java Programs with Greenfoot workshop prior to Programming the Finch Robot in Greenfoot. Greenfoot is a free educational Java development environment (JDE) created at the University of Kent.

NOTE: A Finch robot is required for this workshop they can be purchased from [BirdBrain Technologies](#).



■ [Learn more at BirdBrainTechnologies.org](#)



■ [Learn more at Greenfoot.org](#)

## Target Audiences

### Educators

- Secondary school teachers who teach computer programming
- Secondary school teachers who seek to incorporate computing into their curriculum and awaken students' interest in computer science
- May also be suitable for club leaders and other general educators who wish to incorporate computer science into their curriculum

### Students

- Students who wish to further their Java programming experience and learn how to interface with a robot in a fun and interactive environment
- While Greenfoot is suitable for beginning learners, our experience shows it is most engaging for secondary school and early post-secondary students

### Others

- Parents, volunteers, computer club sponsors, and educators who wish to deliver a workshop in their community
- [Learn about Programming the Finch Robot in Greenfoot Workshop in a Box](#)

## Educator Prerequisites

### Required

- Basic understanding of at least one programming language

### Suggested

- Oracle Academy Workshop: Creating Java Programs in Greenfoot

## Student Prerequisites

### Required

- Basic understanding of at least one programming language

### Suggested

-

- Recommended classroom instruction time: up to 16 hours
- Professional education credit hours for educators who complete Oracle Academy training: 16

### Suggested Next Courses

- Oracle Academy Course: Java Fundamentals

## Programming the Finch Robot in Java

This workshop engages students who understand basic programming concepts to program a 2-D interface using Java to make the Finch Robot interactive using its light, proximity, and temperature sensors. Finch is a small robot designed by BirdBrain Technologies to inspire and delight students learning computer science by providing them a tangible and physical representation of their code. We recommend students take the Creating Java Programs with Greenfoot workshop prior to Programming the Finch Robot in Java.

NOTE: A Finch robot is required for this workshop they can be purchased from [BirdBrain Technologies](#).



■ [Learn more at BirdBrainTechnologies.org](#)



■ [Learn more at Go.Java](#)

### Target Audiences

#### Educators

- Secondary school teachers who teach computer programming
- Secondary school teachers who seek to incorporate computing into their curriculum and awaken students' interest in computer science
- May also be suitable for club leaders and other general educators who wish to incorporate computer science into their curriculum

#### Students

- Students who wish to further their Java programming experience and learn how to interface with a robot in a fun and interactive environment
- While Java is suitable for beginning learners, our experience shows it is most engaging for secondary school and early post-secondary students

#### Others

- Parents, volunteers, computer club sponsors, and educators who wish to deliver a workshop in their community
- [Learn about Programming the Finch Robot in Java Workshop in a Box](#)

### Educator Prerequisites

#### Required

- Oracle Academy Workshop: Programming the Finch Robot in Greenfoot

### Student Prerequisites

#### Required

- Basic understanding of at least one programming language

#### Suggested

- Oracle Academy Workshop: Creating Java Programs in Greenfoot
- Oracle Academy Workshop: Programming the Finch Robot in Greenfoot

### Duration

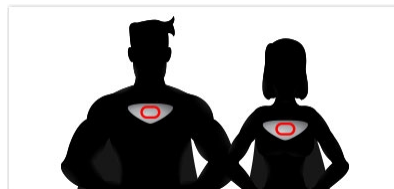
- Recommended classroom instruction time: up to 16 hours
- Professional education credit hours for educators who complete Oracle Academy training: 16

### Suggested Next Courses

- Oracle Academy Course: Java Fundamentals

## Solve It with SQL

This workshop challenges students to play the role of a superhero and solve a series of crimes using a cloud-based database development environment to learn the basics of SQL. As students learn and test SQL terminologies and commands, various clues will be unfolded to help them identify the criminals and solve the mystery.



### Target Audiences

#### Educators

- Secondary school teachers who teach computer programming or Information Technology
- Secondary school teachers who seek to incorporate computing into their curriculum and awaken students' interest in computer science
- May also be suitable for club leaders and other general educators who wish to incorporate computer science into their curriculum

#### Students

- Students who wish to learn databases in a fun and interactive environment

#### Others

- Parents, volunteers, computer club sponsors, and educators who wish to deliver a workshop in their community
- [Learn about Solve It With SQL Workshop in a Box](#)

[Training Opportunities](#)[Workshops](#)[Self-Study](#)[Events Calendar](#)[Overview](#)[Workshop in a Box](#)

- Basic understanding of Database Functions

#### Suggested

- Basic understanding of SQL

#### Student Prerequisites

##### Required

- Basic understanding of Database Functions

#### Duration

- Recommended classroom instruction time: up to 16 hours
- Professional education credit hours for educators who complete Oracle Academy training: 16

#### Suggested Next Courses

- Oracle Academy Course: Database Foundations

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