

# JavaOne4Kids

Saturday, September 17, 2016

Agenda and Session Descriptions



SATURDAY, SEPTEMBER 17							
8:00 AM- 9:00 AM	Registration and Breakfast						
9:00 AM- 9:30 AM	Opening Comments						
	<b>Room 301 Cap 50</b>	<b>Room 302 Cap 50</b>	<b>Room 303 Cap 50</b>	<b>Room 304 Cap 50</b>	<b>Room 305 Cap 100</b>	<b>Room 306 Cap 100</b>	<b>Room 307 Cap 50</b>
9:45 AM -11:45 AM	<b>Build Your Own Website</b> Kevin Nilson  (KID7770)	<b>Defeat the Zombies with Java</b> Cassandra Chin  (KID7771)	<b>Introduction to Arduino</b> Pradeep Bhattar  (KID7772)	<b>HTML 5, JavaScript, and Game Development</b> Anoop Trivedi (KID7773)	<b>Make your own game with Greenfoot</b> Neil Brown  (KID7774)	<b>Game Design From Scratch!</b> G Venkat  (KID7775)	<b>Programming The Finch Robot in Greenfoot</b> William McCabe  (KID7776)
11:45 AM -12:45 PM	Lunch						
12:45 PM -2:45 PM	<b>Introduction to Python Level 1</b> Peter Le  (KID7777)	<b>Bringing Robot online with Robo4j Framework</b> Miroslav Kopecky & Nikhil Nanivadekar (KID7778)	<b>Let's Play with a NAO Robot</b> Daniel De Luca  (KID7779)	<b>Minecraft Modding using Forge 1.8</b> Aditya Gupta  (KID7782)	<b>Java for Elementary and Middle School Using BlueJ</b> G Venkat  (KID7781)	<b>Use Watson to learn about your personality</b> Sandhya Kapoor  (KID7780)	<b>Arcade</b> William McCabe  (KID7783)
2:45 PM -3:00 PM	Break						
3:00 PM -5:00 PM	<b>How to send a secret message</b> Breandan Considine & Nikhil Nanivadekar  (KID7786)	<b>Squash the Bugs!</b> David Taieb  (KID7787)	<b>Star Wars: The Programmer Awakens</b> Aditya Gupta  (KID7788)	<b>Programming The Finch Robot in Java</b> Bruce Regittko  (KID7789)	<b>Beginner Android programming for fun and games</b> Suyash Joshi  (KID7790)	<b>Exploring JavaScript</b> Venkat Subramaniam  (KID7791)	<b>Arcade</b> William McCabe  (KID7783)

Session ID	Title	Abstract
KID7770	Build Your Own Website	In this hands-on lab, kids will discover how web components work. They will use Polymer to build simple but amazing websites leveraging the power of web components.
KID7771	Defeat the Zombies with Java	Evil zombies have taken over the planet. You are one of the last survivors and need to retake the planet. Work with the other zombie exterminators in the lab to push back the undead. To fight off the zombies we will give you a Raspberry Pi, touchscreen, Java, and some Oracle Clouds.
KID7772	Introduction to Arduino	In this hands-on workshop we will introduce the basic concepts applied for connecting “things” in the real world to the digital world, using Arduino Uno, an open-source micro-controller. This is a hands-on workshop. Kids will “make” couple of circuits and learn basic concepts from physics like electricity, voltage, current, resistance. They will get to know sensors and actuators. They will also learn how to write software for Arduino, upload it to Arduino and make it control a circuit (sensors/actuators) connected to it.
KID7773	HTML 5, JavaScript, and Game Development	Hypertext Manipulation Language, HTML, is high-level, easy to understand markup language and is used to create web pages. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. HTML5 and JavaScript together opens a new era of developing 2d structures and games rendered on any modern browser that supports HTML5 specifications. Further, it is possible to port HTML 5 games onto mobile platform such as iOS and Android, a topic we will cover in future class. So are you ready to experiment how to bounce a ball, detect collision of objects on a browser or fly with BB8 & R2D2?



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Session ID	Title	Abstract
KID7774	Make your own game with Greenfoot	In this session we will guide you through making your own computer game. No prior experience is required (but if you can program you will still find plenty of exciting new things to learn in this session). For making this game we will use Greenfoot, an educational IDE, which makes it easy to create graphical applications such as games. The workshop is presented by the creators of Greenfoot themselves. You will learn to program in Stride, a language which combines the power of Java with the ease-of-use of Scratch to help you learn real programming more easily. Greenfoot is free to download, so you can continue to use it with many more examples (in Stride or Java) in your own time after this workshop. <b>Suggested age: 12+.</b>
KID7775	Game Design From Scratch!	This session is an interactive, fun-filled, and creative exploration of computers and a novel approach to learning computer programming that combines drawing, sound, animation, and individual expression of ideas to create games. Students learn the techniques to program multiple types of games including jumping games, shooting games and arcade games like Pong. In the process of learning game design, students also learn various computer science concepts like variables, loops, data types, operators, data structures, events, and conditional logic. The hands-on instructor led session will use MIT Scratch as the programming language.
KID7776	Programming The Finch Robot in Greenfoot	Excited about programming robots? In this highly interactive session from Oracle Academy you will visit a number of labs to learn how to program a small friendly programmable robot known as Finch using Java. Using the Greenfoot environment you will create an interface to control the functions of the Finch including directional control, light and proximity sensors, sounds, colors and Accelerometers. You will also have the opportunity to perform various experiments at each programming lab to test the function of your program and robot. This workshop will have opportunities to participate for Beginners / Intermediate and Advanced programmers. All participants will have access to their own Finch Robot for the duration of the workshop.



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Session ID	Title	Abstract
KID7777	Introduction to Python Level 1	Python is a powerful programming language and it uses English keywords. It is a good option for young programmers to start with. This lesson provides basic concepts such as variables, data types, operators, loops, if statements and functions. All concepts are explained through hands-on examples and exercises, so students learn by coding in Python.
KID7778	Bringing Robot online with Robo4j Framework	In the session attendee will learn how to build the robot by using Robo4j framework. Robo4j provides easy and straightforward interfaces to manage/connect engines and sensors together. Robo4j allows to create simple robot units. Those units are then connected to the robotic system. The robotic system is controlled by the chosen interface. Robo4j provides set of basic interfaces: Graphical Interface (JavaFX), Rest API (JSON), Command line (Jar file, from the terminal). All of those interfaces allows to create new commands for the robot, process those commands and administrate them. All interfaces also provide various information about the robot, for example command history and etc.. example: <a href="https://goo.gl/MKUWZM">https://goo.gl/MKUWZM</a> , <a href="https://goo.gl/rFswDX">https://goo.gl/rFswDX</a>
KID7779	Let's Play with a NAO Robot	Created by Aldebaran Robotics, NAO is a 58-centimeter-tall humanoid robot with 25 degrees of freedom, designed to be fully and easily programmable.
KID7782	Minecraft Modding using Forge 1.8	Have you always wondered what it takes to write Minecraft mods? In this workshop we'll teach attendees how to build Minecraft mods using Forge 1.8. They will write Java code in the Eclipse IDE to make fun mods like Ender Dragon Spawner, Sharp Snowballs, and Skeleton War. Attendees will learn about programming concepts like control structures, operators, and variables. This workshop is a fun way to get started with Java programming in an interesting way.



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Session ID	Title	Abstract
KID7781	Java for Elementary and Middle School Using BlueJ	By 2020, more than half of all STEM jobs are projected to be in computer science-related fields. Yet a large majority of K-12 schools still don't offer computer-programming classes. Many students start to program in Scratch while in elementary school. This session aims to accelerate the exposure of students to object-oriented concepts and Java. Java has a clean design and is very popular. BlueJ is very simple to use yet great for teaching purposes. It offers visualization, ability to create objects and interact with them. Students will be able to start programming in Java within a short amount of time.
KID7780	Use Watson to learn about your personality	<ul style="list-style-type: none"><li>•Ever wondered what kind of personality are you? What friends think about you? Social media accounts like Snapchat, Instagram or Facebook tell a lot about you, friends, and what your friends think about you. And who better to help you with this but friendly Watson!</li><li>•Watson is a computer created by IBM that can answer any question. Its claim to fame is winning the game of Jeopardy against the best players. You give it a question, and it has an answer! Lets use this capability to learn about what your friends think about you!</li><li>•Come to this workshop to connect your Instagram or Snapchat accounts with Watson. Watson in turn can tell you things about yourself, you did not know :)</li><li>•Check out other famous characters (LOTR) analyzed by Watson!</li></ul>



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Session ID	Title	Abstract
KID7783	Arcade	<p>Come and join the Oracle Academy Arcade and explore a workshop of your choice from :</p> <ul style="list-style-type: none"><li>Programming an Alice Animation</li><li>Programming an Arcade Game in Greenfoot</li><li>Programming The Finch Robot in Java</li><li>Programming The Finch Robot in Greenfoot</li><li>Solving a series of crimes using a SQL Database</li></ul> <p>In these highly interactive session from Oracle Academy you will visit a workshop of your choice and have the opportunity to play some of the games and animations in the Oracle Arcade. This workshop will have opportunities to participate for Beginners / Intermediate and Advanced participants.</p>
KID7786	How to send a secret message	<p>Have you ever wanted to share a secret message with your friend, without anyone knowing the message? Computers are very good at this. In this talk, you will learn a few ways to share a secret message with your friend, and no one else will know the secret, even if they find your message!</p>
KID7787	Squash the Bugs!	<p>Like every kids on the planet, you probably love computer games, but are not a big fan when they stop working because of a bug in the program. Have you ever wondered how these bugs are being discovered and fixed? In this hands-on session, you will have the opportunity to play the role of a Quality Engineer. You'll be given 3 computer games with the task of finding as many bugs as possible (beware some of them are more obvious than others!). We'll then conclude the session by a live Java coding session where you'll be able to fix some of the bugs and even improve the games design. During this fun and interactive session, you will learn about the development process for creating a computer game and perhaps appreciate the next game you'll play</p>



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Session ID	Title	Abstract
KID7788	Star Wars: The Programmer Awakens	Star Wars may be science fiction, but it's getting closer to reality in this workshop. The company Sphero has made a real-life version of the BB-8 droid from the movie which can be programmed. The droid looks like the one in the movie. In this workshop, we'll use block-based programming on a mobile app to program the droid. The app connects to the droid with Bluetooth, and it can control the droid from a program that the attendees will make. Using activities that progress in difficulty, attendees will learn programming concepts like control structures, variables, and operators. They will program the BB-8 droid to explore, escape storm troopers, and infiltrate bases. Overall, this workshop is a fun way to get kids engaged with programming. <b>Each attendee will have to bring an Apple mobile device with the Tickle application installed. The app can be found at <a href="https://tickleapp.com/">https://tickleapp.com/</a>.</b>
KID7789	Programming The Finch Robot in Java	Excited about programming robots? In this highly interactive session from Oracle Academy you will visit a number of labs to learn how to program a small friendly programmable robot known as Finch using Java. Using the Java IDE Netbeans you will create an interface to control the functions of the Finch including directional control, light and proximity sensors, sounds, colors and accelerometers. You will also have the opportunity to perform various experiments at each programming lab to test the function of your program and robot. This workshop will have opportunities to participate for Beginners / Intermediate and Advanced programmers. All participants will have access to their own Finch Robot for the duration of the workshop.



# Session Descriptions

Session ID	Title	Abstract
KID7790	Beginner Android programming for fun and games	<p>Are you excited about making your own game and let your friends play it? In this hands on class, you will learn how to create your first game on Android using Java from scratch.</p> <p>We will build a simple mind reading game that will use various sensors of your device and speaker for music in the game. We will create a interactive scene, and 2 characters using several UI widgets that we will customize for game play. You will learn not only how to program Android application but also how to design a fun user experience.</p>
KID7791	Exploring JavaScript	<p>JavaScript has become one of the most popular and ubiquitous languages to program on the internet. It's one of the few languages that run both on browsers (desktops and mobile devices) and also on the servers. It's among the few languages that every programmer has most likely touched. Come to this workshop to explore JavaScript. JavaScript is very powerful, but has some rough edges, and that can make programming in this language fun! In this workshop, the attendees will pair up to create a few different games using JavaScript.</p>