Programming Resources and Networks

Organisation Name	What is it?	Who is the target audience?	Targeted Skill Level	What is their focus?	Costs involved
AppInventor appinventor.org http://www.appinventor.org/	An online tutorial hub for learning and teaching how to build mobile apps in MIT's App Inventor. The website includes resources for teachers to study and build App Inventor modules for students. Resources are included to learn Java directly as well.	Teachers and learners eager to build Android mobile applications.	Beginner Intermediate	Online tutorials for building Android apps.	Users can access all tutorials for free.
AppShed appshed http://appshed.com/	AppShed Academy is a learning resource that covers app creation from the basics through to advanced programming techniques. Lesson plans are available for teachers, and there are video tutorials for students.	Students interested in app development, and teachers wanting to teach app development as part of ICT and other relevant courses.	Beginner	Android, iOS and HTML5 app development	Users can begin study for free. Professional and Educational institution subscriptions are available, at £9GBP per month and £180GBP per year respectively.
Codeacademy codecademy https://www.codecademy.com/	An online learning resource where users can undertake tutorials and lessons to learn a variety of programming languages including (but not limited to) Java, HTML and SQL.	Students and teachers wanting to learn how to program.	Any	Teaching a range of programming languages	Users can learn to code for free. A pro package is offered for $19.99USD per month which includes a personalised learning plan, access to quizzes and projects, as well as optional communication with advisors.

Code Avengers CODE AVENGERS http://www.codeavengers.com/	A website with courses to help students learn to build websites, apps and games. Includes lesson plans and assessments. Students can learn languages such as Python, HTML/CSS and Javascript.	Teachers and parents interested in teaching students programming	Beginner	Programming for web, app and game development	Users are offered a 7-day free trial which includes 5 lessons. Further use requires a subscription of $29USD per month, or $120USD for six months.
Code Club Australia codeclub australia https://codeclubau.org/	Code Club Australia is a nationwide network of free, volunteer-led, after-school coding clubs for children. Clubs are hosted at volunteer schools or libraries, and teaching children coding in Scratch and Python	Students aged 9-11	Beginner	Programming for computer games, animations and websites using Python and Scratch.	Registration is free. Users need only get in contact with a local school or library which hosts the after-school club.
CodeHS CodeHS https://codehs.com	An online teaching platform designed to help schools and teachers learn computer science. Languages taught include Javascript, Python and Java. Online resources include curriculum documentation.	High school teachers and students interested in computer science	Beginner	Detailing a source of computer science areas of study for teachers and high schools.	A free subscription is offered, as well as a three-tiered payment model. Cost is determined on a case-by-case basis.
Code.org C O D E https://code.org/	A non-profit organisation dedicated to increasing the level of computer science taught in American schools. Online courses are offered to teachers which include classes in Javascript, app and computer game development.	Schools and teachers interested in computer science, app and game development.	Any	A range of computer science disciplines such as app and game development for all levels of schooling.	Code.org is a non-profit organisation and secures funding through donations.

Code School https://www.codeschool.com/	An online learning destination for those with prior programming experience wishing to build their knowledge further. Covers app, web and game development, including HTML, Python, Ruby and Javascript.	Learners with prior programming experience interested in building their skills further.	Intermediate and higher	Creating a source for users to build web, app and game programming skills.	Users can begin study for free which includes 10 introductory courses. A professional subscription allows unlimited access to all tutorials and courses, with monthly or yearly options at $29USD and $228USD respectively.
Code the Future http://www.codefuture.org	A charity website that connects volunteer developers with educators to get developers into schools to work with teachers and students. Users can browse their local area to find coding support groups and get in touch.	Teachers interested in teaching students different programming projects. The aim is to get volunteers working with any year level.	Any	Connecting educators with developers covering a range of different programming projects.	Registration is free. Users need only get in contact with a community. Code the Future is funded by donations.
GameFroot http://gamefroot.com/	A visual programming language similar to Scratch but more advanced. Users can create code with visual blocks and commands to form complex functions. Many graphical and scripting assets are shared online or can be bought to help with game development.	Students and teachers wanting to build video games with a visual programming language.	Beginner Intermediate	Providing an online game development software that is easy for visual learners to pick up and begin.	GameFroot is free to use but includes an optional Pro version. To purchase the Pro version, users must email the web host for a quote.
Gamestar Mechanic https://gamestarmechanic.com/	A website with a host of games that are intended to teach learners coding for games and systems, as well as game design logic. Learning is self-paced and broken into individual 'Quests.'	The website is aimed at 7 to 14-year-olds, but is open to all ages.	Any	Strongly focussed on games, game design and systems.	Users can start for free with a single design quest. Other options are available, including a full online course for $249USD.

Harvard's CS50x edX https://www.edx.org/cours e/introduction-computer-science-harvardx-cs50x	An online educational program hosted by Harvard University that allows learners to enrol in an introductory computer science program. Languages learnt include C, Javascript and HTML	High school and university students, either with prior programming experience or no programming knowledge.	Any	General programming concepts and a variety of languages with a focus on web and game development.	Students may enrol in the program for free. An optional $90 Verified Certificate may be purchased for students to highlight their achievements on their CV.
Khan Academy KHANACADEMY https://www.khanacademy .org/computing/computer-programming	The wholly-donation funded Khan Academy hosts a range of online learning resources for students to build coding and computer programming skills. All creations can be shared and exchanged with other learners.	All ages with any level of programming experience.	Any	Developing drawings, animations and games using Javascript, and learning to build web pages with HTML and CSS.	Khan Academy is entirely free to enrol and use. The website survives on donations.
Lightbot lightbot™ https://lightbot.com	A very simple online game that teaches learners the flow and operations inherent to programming with a visual, point-and-click interface. The website features a free hour-long example. The full version is available on mobile devices, Windows and Mac.	There are two versions, one aimed at ages 4 to 8, and a second for ages 9 and up.	Beginner	Learning the process of operations and simple coding logic through a game.	Both versions of Lightbot are available from $4.49 each and vary slightly according to platform.
Scratch SCRATCH https://scratch.mit.edu/	A cute, colourful visual-programming language that teaches students coding with simple commands represented by coloured blocks. Students learn to animate 2D characters using visual code.	Scratch is designed for ages 8 to 16 with minimal coding experience. A second version known as ScratchJr is available for children aged 5 to 7.	Beginner	Learning the process of operations and simple coding logic through visual commands to create simple animations.	Free for all users.

SQLZOO http://sqlzoo.net/	An free online Wiki design to teach users SQL. Includes a range of examples, tutorials and exercises.	Early high school aged students and up.	Intermediate	Learning to hard code in SQL.	Free for all users.
Swift Playgrounds https://developer.apple.com/swift/playgrounds/	An as yet unreleased iPad app that helps learners quickly and powerfully learn Swift. A beta version is available for download online. More advanced users can create elaborate "Playgrounds" for less experienced users to investigate and learn from.	Learners aged 10 and up.	Any	Learning to both hard code and visually code in Swift, Apple's own programming language.	Currently unreleased. A free beta is available to download.
Treehouse https://teamtreehouse.com	Featuring a host of different educational programs for Java, web, iOS and Adroid development. Treehouse focusses on providing the knowledge necessary to make it in the industry. Every course is divided into different stages or modules, with a video-then-quiz approach.	High school students and graduates.	Beginner	Strongly focussed on web, Android and iOS development.	Users are granted a free 7-day trial. Each course has its own specific value ranging from $399USD per month to $599 USD per month. Group membership discounts are also offered.

Tynker https://www.tynker.com/	Unique in that it's designed to be directly integrated into a classroom. Teachers can sign into a separate version of the website that allows them to create and manage classrooms for students, as well as work with lesson plans involving the website. Students learn through playing and building games.	Primary teachers and students.	Beginner Intermediate	Building apps and games, plus additional information to mod Minecraft.	Several free modules are offered, with many optional courses available to purchase.
Udacity https://www.udacity.com	Online courses are offered in the form of "Nanodegrees." Studies available for app and web development, and wider facets of computer science.	Young adults interested in the coding industry.	Intermediate and up	Industry skills related to app and web development.	Free tutorials are available to learners, however all Nanodegrees must be purchased.