

# Adventures in Snap Programming

*I was very interested in your Advanced Scratch book and I absolutely love some of the activities you've written around computational thinking and children.*

— Mary Gorman, New Zealand

**Adventures in Snap! Programming**  
by Abhay B. Joshi

Here is another exciting book in the popular series "Learning computer programming and CS principles". This book will help you apply your Snap programming skills to design 12 challenging projects. When you design these complex programs using the recurring design-code-test cycle, you will learn a problem-solving technique called divide and conquer, a programming idea called object-oriented thinking, and even some project management.



*Only rarely does some exceptional event lead people to reorganize their intellectual self-image in such a way as to open up new perspectives on what is learnable.*

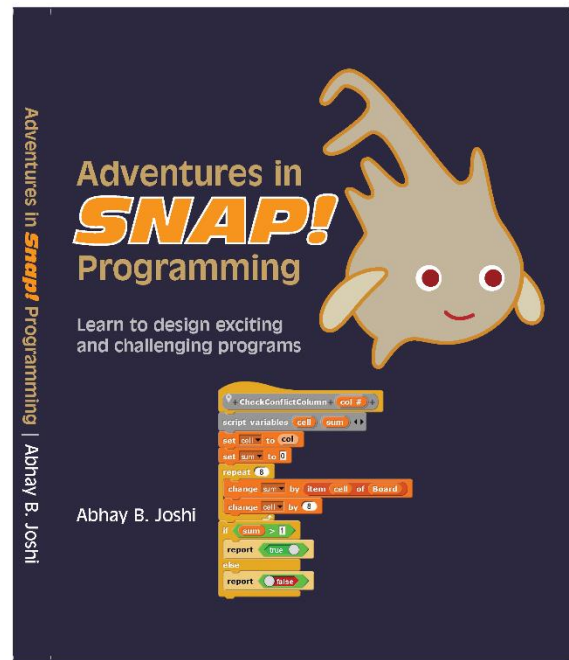
— Seymour Papert



*I am here from the book, found it very informative and really inspired me to make better projects. Definitely one of the best purchases I have made.*

— a Scratch user

In the constructivist tradition of Jean Piaget and Seymour Papert, the author of this book views computer programming not just as a useful skill to build careers, but also as a "powerful medium for learning" in which students actively engage in a creative, entertaining, and intellectually challenging pursuit. The author has been conducting CS classes for middle and high school students since 2007. He divides his time between Seattle, USA and Pune, India.



## Introduction:

"Adventures in Snap Programming" is a new exciting book for middle- and high-school students and for beginner CS college students. This book is a collection of 12 challenging and fun projects; each chapter explains how to design that program in a tutorial-like fashion.

It is assumed that the reader is familiar with all the basic features of Snap and CS concepts, such as, variables, looping, broadcasting, conditionals, Boolean operators, custom procedures, lists, etc. If you are a beginner in Snap or if you want to brush up your basics, we highly recommend the book "Learn CS Concepts with Snap" in this book series.

## Download a free chapter:

[Click here](#) to download a full chapter of this exciting book. If you like it, be sure to get your hands on the whole book.

## How to get your copy:

This book is available worldwide on Amazon Kindle and in print in certain countries. To order your printed copy in India, write to [abjoshi@yahoo.com](mailto:abjoshi@yahoo.com).

## More about the book:

The book has been organized as a series of independent projects – each of which describes how to design and build an interesting and challenging program. Each project progresses in stages – from a simple implementation to increasingly complex versions. You can read these chapters in any order you like.

Programming is a powerful tool that can be applied to virtually any field of human endeavor. There is a good variety of applications in this book. You will find the following types of projects:

- Board games
- Puzzles

- Simulation
- Math games
- Designs and illusions
- Dungeon games

## **Authors' background**

As a freelance teacher (since 2008), Abhay's area of interest has been "teaching Computer Programming as a medium for learning" and he has been teaching Snap, Python, and Scratch regularly to middle and high school students – currently in the Pacific Northwest of USA and Pune, India.

Since 2011 Abhay has authored several books for a series aimed at *Learning computer programming and CS principles*. He now has a set of 4 books on Snap Programming which anyone can use to start from the basics and become an expert Snap programmer. He has also written books on Logo Programming – the granddaddy of and inspiration behind most modern languages meant for CS education. Abhay has written several articles to promote CS education and has conducted teacher-training workshops to encourage aspiring teachers to experiment with this idea.

Abhay has been associated with the Software Industry since 1988 as a programmer, developer, entrepreneur, coach, and adviser. After getting an MS in Computer Engineering from Syracuse University (USA), he worked as a programmer for product companies that developed operating systems, network protocols, and secure software. In 1997, Abhay co-founded Disha Technologies, a successful software services organization.

Programming remains one of Abhay's favorite hobbies, and he continues to explore the "entertaining, intellectual, and educational" aspects of programming.

Author's CS page: <http://www.abhayjoshi.net/spark/home.htm>