Extracted from:

Exercises for Programmers

57 Challenges to Develop Your Coding Skills

This PDF file contains pages extracted from *Exercises for Programmers*, published by the Pragmatic Bookshelf. For more information or to purchase a paperback or PDF copy, please visit http://www.pragprog.com.

Note: This extract contains some colored text (particularly in code listing). This is available only in online versions of the books. The printed versions are black and white. Pagination might vary between the online and printed versions; the content is otherwise identical.

Copyright © 2015 The Pragmatic Programmers, LLC.

All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior consent of the publisher.

The Pragmatic Bookshelf

Dallas, Texas • Raleigh, North Carolina



Exercises for Programmers

57 Challenges to Develop Your Coding Skills

Brian P. Hogan Edited by Susannah Davidson Pfalzer

Exercises for Programmers

57 Challenges to Develop Your Coding Skills

Brian P. Hogan

The Pragmatic Bookshelf

Dallas, Texas • Raleigh, North Carolina



Many of the designations used by manufacturers and sellers to distinguish their products are claimed as trademarks. Where those designations appear in this book, and The Pragmatic Programmers, LLC was aware of a trademark claim, the designations have been printed in initial capital letters or in all capitals. The Pragmatic Starter Kit, The Pragmatic Programmer, Pragmatic Programming, Pragmatic Bookshelf, PragProg and the linking *g* device are trademarks of The Pragmatic Programmers, LLC.

Every precaution was taken in the preparation of this book. However, the publisher assumes no responsibility for errors or omissions, or for damages that may result from the use of information (including program listings) contained herein.

Our Pragmatic courses, workshops, and other products can help you and your team create better software and have more fun. For more information, as well as the latest Pragmatic titles, please visit us at *https://pragprog.com*.

The team that produced this book includes:

Susannah Davidson Pfalzer (editor) Linda Recktenwald (copyedit) Dave Thomas (layout) Janet Furlow (producer) Ellie Callahan (support)

For international rights, please contact rights@pragprog.com.

Copyright © 2015 The Pragmatic Programmers, LLC. All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior consent of the publisher.

Printed in the United States of America. ISBN-13: 978-1-68050-122-3 Encoded using the finest acid-free high-entropy binary digits. Book version: P1.0—September 2015

47 Who's in Space?

Did you know you can find out exactly who's in space right now? The Open Notify API provides that information. Visit http://api.open-notify.org/astros.json to see not only how many people are currently in space but also their names and which spacecraft they're on.

Create a program that pulls in this data and displays the information from this API in a tabular format.

Example Output

There are 3 people in space right now:

| Name Cra | |
|---|--|
| Gennady Padalka ISS Mikhail Kornienko ISS Scott Kelly ISS | |

Constraint

• Read the data directly from the API and parse the results each time the program is run. Don't download the data as text and read it in.

Challenges

- Ensure that the width of the header is as long as the longest value in the column.
- Don't repeat the name of the craft—group all people by craft.
- Can you reliably sort the results alphabetically by last name? Be careful—some people have spaces in their name, like "Mary Sue Van Pelt."