Recent Graduate → Sample Project

GENERAL GUIDANCE:

In this sample project, we want to go through the exercise of creating a working Azure Function that performs a specific task. The purpose of this exercise is to provide a common framework for you to highlight your skills and walk us through your working solution. There is no right or wrong solution, we are interested in hearing and seeing how you completed it.

A Audiobook Catalog Cleansing Service

LearnIt Audiobooks allows users to upload knowledge based audio books for others to learn and develop new skills. However, because they rely on user uploads they often end up with many duplicates within their master catalog that need to be identified and removed.

REQUIREMENTS:

- **Minimum:**
    - Create a C# or Java based Azure Function that:
        - Accepts and parses the Input JSON (Sample in Appendix A, but this may be expanded to support large payloads, error handling tests, etc. as needed)
        - Determines if there are any duplicate audiobooks via matching isbn numbers
        - Removes the duplicates (capturing removed records in logs)
        - Returns a response JSON of the same structure containing no duplicates
    - Unit tests to ensure the Azure Function is working properly and handles various error conditions, i.e. invalid input format, etc.

- **Optional:**
    - A demonstration of the working service/function access via a REST client against your local development environment
    - Azure Function deployed into the Azure Cloud
    - A demonstration of the working service/function access via a REST client against the Azure Cloud deployed instance

- **Bonus:**
    - If all requirements above are met, consider increasing the capability of your Function, i.e. update the response object to contain metadata around the number of duplicates found/removed, etc.

Costs: All Applications, services, and tools should be available free of charge through open source, trials, demo's, etc. This sample project should not cost you any money to complete, please do not enter a credit card into anything…

APPENDIX A → DATA MODEL

```
{
    "books": [
        {
            "isbn": "9781593279509",
            "title": "Eloquent JavaScript, Third Edition",
            "subtitle": "A Modern Introduction to Programming",
            "author": "Marijn Haverbeke",
            "published": "2018-12-04T00:00:00.000Z",
            "publisher": "No Starch Press",
            "pages": 472,
            "description": "JavaScript lies at the heart of almost every modern web application, from social apps like Twitter to browser-based game frameworks like Phaser and Babylon. Though simple for beginners to pick up and play with, JavaScript is a flexible, complex language that you can use to build full-scale applications.",
            "website": "http://eloquentjavascript.net/"
        },
        {
            "isbn": "9781484242216",
            "title": "Rethinking Productivity in Software Engineering",
            "subtitle": "",
            "author": "Caitlin Sadowski, Thomas Zimmermann",
            "published": "2019-05-11T00:00:00.000Z",
            "publisher": "Apress",
            "pages": 310,
            "description": "Get the most out of this foundational reference and improve the productivity of your software teams. This open access book collects the wisdom of the 2017 \"Dagstuhl\" seminar on productivity in software engineering, a meeting of community leaders, who came together with the goal of rethinking traditional definitions and measures of productivity.",
            "website": "https://doi.org/10.1007/978-1-4842-4221-6"
        },
        {
            "isbn": "9781491943533",
            "title": "Practical Modern JavaScript",
            "subtitle": "Dive into ES6 and the Future of JavaScript",
            "author": "Nicolás Bevacqua",
            "published": "2017-07-16T00:00:00.000Z",
            "publisher": "O'Reilly Media",
            "pages": 334,
            "description": "To get the most out of modern JavaScript, you need learn the latest features of its parent specification, ECMAScript 6 (ES6). This book provides a highly practical look at ES6, without getting lost in the specification or its implementation details.",
            "website": "https://github.com/mjavascript/practical-modern-javascript"
        },
        {
            "isbn": "9781593277574",
            "title": "Understanding ECMAScript 6",
            "subtitle": "The Definitive Guide for JavaScript Developers",
            "author": "Nicholas C. Zakas",
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        "published": "2016-09-03T00:00:00.000Z",
        "publisher": "No Starch Press",
        "pages": 352,
        "description": "ECMAScript 6 represents the biggest update to the core of JavaScript in the history of the language. In Understanding ECMAScript 6, expert developer Nicholas C. Zakas provides a complete guide to the object types, syntax, and other exciting changes that ECMAScript 6 brings to JavaScript.",
        "website": "https://leanpub.com/understandinges6/read"
    },
    {
        "isbn": "9781449365035",
        "title": "Speaking JavaScript",
        "subtitle": "An In-Depth Guide for Programmers",
        "author": "Axel Rauschmayer",
        "published": "2014-04-08T00:00:00.000Z",
        "publisher": "O'Reilly Media",
        "pages": 460,
        "description": "Like it or not, JavaScript is everywhere these days -from browser to server to mobile- and now you, too, need to learn the language or dive deeper than you have. This concise book guides you into and through JavaScript, written by a veteran programmer who once found himself in the same position.",
        "website": "http://speakingjs.com/"
    },
    {
        "isbn": "9781449331818",
        "title": "Learning JavaScript Design Patterns",
        "subtitle": "A JavaScript and jQuery Developer's Guide",
        "author": "Addy Osmani",
        "published": "2012-08-30T00:00:00.000Z",
        "publisher": "O'Reilly Media",
        "pages": 254,
        "description": "With Learning JavaScript Design Patterns, you'll learn how to write beautiful, structured, and maintainable JavaScript by applying classical and modern design patterns to the language. If you want to keep your code efficient, more manageable, and up-to-date with the latest best practices, this book is for you.",
        "website": "http://www.addyosmani.com/resources/essentialjsdesignpatterns/book/"
    },
    {
        "isbn": "9798602477429",
        "title": "You Don't Know JS Yet",
        "subtitle": "Get Started",
        "author": "Kyle Simpson",
        "published": "2020-01-28T00:00:00.000Z",
        "publisher": "Independently published",
        "pages": 143,
        "description": "The worldwide best selling You Don't Know JS book series is back for a 2nd edition: You Don't Know JS Yet. All 6 books are brand new, rewritten to cover all sides of JS for 2020 and beyond.",
        "website": "https://github.com/getify/You-Dont-Know-JS/tree/2nd-ed/get-started"
    },
    {
        "isbn": "9781491943533",

```
        "title": "Practical Modern JavaScript",
        "subtitle": "Dive into ES6 and the Future of JavaScript",
        "author": "Nicolás Bevacqua",
        "published": "2017-07-16T00:00:00.000Z",
        "publisher": "O'Reilly Media",
        "pages": 334,
        "description": "To get the most out of modern JavaScript, you need learn the latest features of its
parent specification, ECMAScript 6 (ES6). This book provides a highly practical look at ES6, without
getting lost in the specification or its implementation details.",
        "website": "https://github.com/mjavascript/practical-modern-javascript"
    },
    {
        "isbn": "9781484200766",
        "title": "Pro Git",
        "subtitle": "Everything you neeed to know about Git",
        "author": "Scott Chacon and Ben Straub",
        "published": "2014-11-18T00:00:00.000Z",
        "publisher": "Apress; 2nd edition",
        "pages": 458,
        "description": "Pro Git (Second Edition) is your fully-updated guide to Git and its usage in the
modern world. Git has come a long way since it was first developed by Linus Torvalds for Linux kernel
development. It has taken the open source world by storm since its inception in 2005, and this book
teaches you how to use it like a pro.",
        "website": "https://git-scm.com/book/en/v2"
    },
    {
        "isbn": "9781484242216",
        "title": "Rethinking Productivity in Software Engineering",
        "subtitle": "",
        "author": "Caitlin Sadowski, Thomas Zimmermann",
        "published": "2019-05-11T00:00:00.000Z",
        "publisher": "Apress",
        "pages": 310,
        "description": "Get the most out of this foundational reference and improve the productivity of your
software teams. This open access book collects the wisdom of the 2017 \"Dagstuhl\" seminar on
productivity in software engineering, a meeting of community leaders, who came together with the goal
of rethinking traditional definitions and measures of productivity.",
        "website": "https://doi.org/10.1007/978-1-4842-4221-6"
    }
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}
```

APPENDIX B → RESOURCES

Training / How To / Example Videos

- TBD

Training / How To / Example Websites

- TBD

Training / How To / Example Code Snippets / Git Repos

- TBD