Advanced JavaScript

# Objectives

1. Implement the logical layer of the Contact Book application
2. Simulate object oriented concepts like inheritance and polymorphism in JavaScript

# Tasks

1. Open the starter project
2. The contact book application consists of the following classes: App, Book, BookItem, Contact and Group
3. **BookItem** – An abstract class. Never instantiated. Serves as the base class of all items contained inside the book. Should have the following methods:
   1. **dump** - Abstract method. When implemented by derived class should log into the console object the content of the current item including child items
   2. **parent** – A reference to the parent group
4. **Contact** – Represents a single contact inside the contact book. Holds **name** and **email** fields. Derives from BookItem
5. **Group** – Represents a group inside the book. A group contains both contacts and sub groups. Holds a **name** field and a collection field of all items contained inside the group. Should have a public method named **addItem** which allows the client to add new book item (contact or group) into it. Derives from BookItem**.** The **dump** method should print the name of the group and recursively log all items inside the group.
6. **Book** – Represents the whole contact book. Holds a reference to a root group. Offers a public method named **dump** which **log** the whole contact book. Once created it should seed itself with some test data and log the whole book into the browser console.
7. Implement above classes and execute your application. Ensure the browser console window contains all relevant data.
8. Feel free to add any additional methods required by your implementation