

Introduction

You need to provide a link to a GitHub repo containing an object-oriented solution worked in Perl. Commit groups of related changes as you make them rather than making one single commit at the end of the project. In addition to the provided solution, a file containing the list of any assumptions and/or to-do items should be included.

Work on the exercise is time-boxed to 90 minutes.

You may not have time to provide a solution that meets the full set of requirements. Prioritize completion of a working, tested, extensible, well-designed vertical slice over a complete solution.

Data persistence between runs of the service is not necessary.

Background

You have been contracted to create a prototype service for scheduling and tracking transaction-based email. This will eventually be expanded to be a more complete subscription management service but for now will only schedule/track email to be sent.

Prototype

The full prototype you have been contracted to provide will support adding/removing products owned by customers and listing an email schedule.

Adding a product requires five pieces of information:

- CustomerId (e.g., "Cust123")
- ProductName (e.g., "domain")
- Domain (e.g., "xyzzzy.com")
- StartDate (e.g., "2020-01-01")
- DurationMonths (e.g., 12)

Removing a product requires three pieces of information.

- CustomerId (e.g., "Cust123")
- ProductName (e.g., "domain")
- Domain (e.g., "xyzzzy.com")

Listing the email schedule returns a list of scheduled email (sorted by date).

CustomerID	ProductName	Domain	EmailDate
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Cust2345	hosting	plugh.com	2021-03-27
Cust1234	domain	xyzzzy.com	2022-01-07
Cust3456	pdomain	abcdefg.net	2022-03-21
Cust2345	hosting	plugh.com	2022-03-24
Cust3456	pdomain	abcdefg.net	2022-03-28

Company Products

Only three products are offered presently (with additional products planned for the future): Domain, Hosting, and Protected Domain ("pdomain").

- Domain sends email 2 days before expiration.
- Hosting sends email 1 day after activation and 3 days before expiration.
- Protected Domain sends email 9 days before expiration and 2 days before expiration.