

Exercise 1: Bookstore.

0. Introduction

The aim of this exercise is to implement a book store protocol. You should be able to produce two versions of this exercise: in GV and CP (4 in total).

1. Part 1

You are given the following server session type of a book store:

```
typename Shop = mu a.[&|Add:?String.a, Checkout:?Int.?String.EndBang|&];
```

Your task is to implement the client side. The server side code is provided as a text file. Sample output produced by the server:

```
Book name received: Alice in Wonderland
Book name received: Scotland in XX century
Card number received: 8753
Address received: Summerhall Square
() : ()
```

2. Part 2

This part is extensions. We suggest you try either or both:

- Suppose that the client added couple of books for themselves and now wants to buy one for their friend. Create another, parallel, session type that gets a book name from a friend and adds it.
- Create a shipper. A server takes in card number and then gives the communication channel to a shipper for it to receive an address.

Server code is provided. Sample output:

```
Book name received: Alice in Wonderland
Book name received: The Hitchhiker's Guide to the Galaxy
Book name received: Scotland in XX century
Card number received: 8753
Address received: Summerhall Square
() : ()
```