Find the Best Hotel Deal

Imagine you're given a data file containing hotel deals, aggregated from participating hotels. Write an app that will find the best deal given a hotel name, check-in date, and duration of stay. Print the promo_txt value for the best deal, or "no deals available" if none exists. Consider the type and value of the deals, as well as whether they apply. Your solution will be evaluated based on correctness, performance, code design, and maintainability.

Requirements:

* Some aspects of the problem are intentionally vague. We're interested in your approach and decisions. Note any assumptions that you make in your solution.
* You are responsible for crafting your own data set for development and testing. Be sure your solution works beyond the examples provided, below.
* Gracefully handle input errors and provide informative feedback to the user
* Use Java, C++, C#, or Python for your solution. You may use common libraries, but make sure to include anything necessary to compile your solution.

The types of deals are as follows:

* `rebate`: a straight discount off the total price of the stay
* `rebate_3plus`: a straight discount off the total price when the duration of stay is 3 nights or more
* `pct`: a percentage discount off the total price of the stay

The deals data file will be a comma-separated file (CSV) in the following format. You may assume the entire deal file fits in memory.

```
hotel_name,nightly_rate,promo_txt,deal_value,deal_type,start_date,end_date

Hotel Foobar,250,$50 off your stay 3 nights or more,-50,rebate_3plus,2016-
03-01,2016-03-31

Hotel Foobar,250,5% off your stay,-5,pct,2016-03-01,2016-03-15

Hotel Foobar,250,$20 off your stay,-20,rebate,2016-03-07,2016-03-15
```

The input to your application will be the path to the deal file, hotel name, check in date, and number of nights stay. For example:

```
> BestHotelDeal ./deals.csv "Hotel Foobar" 2016-03-14 3
```

Examples:

```
> BestHotelDeal ./deals.csv "Hotel Foobar" 2016-03-05 3

> $50 off your stay 3 nights or more

> BestHotelDeal ./deals.csv "Hotel Foobar" 2016-03-10 2

> 5% off your stay

> BestHotelDeal ./deals.csv "Hotel Foobar" 2016-03-20 1

> no deal available
```