Create a program to preview hotel room availability and reservations. The application should read from files containing hotel data and booking data, then allow a user to check room availability for a specified hotel, date range, and room type.

Example command: 

myapp

--hotels hotels.json

--bookings bookings.json

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| --- | --- |
| Example  hotels.json  [  {  "id": "H1",  "name": " Hotel California",  "roomTypes": [  {  "code": "SGL",  "description": " Single Room"  },  {  "code": "DBL",  "description": " Double Room"  }  ],  "rooms": [  {  "roomType": "SGL",  "roomId": "101"  },  {  "roomType": "SGL",  "roomId": "102"  },  {  "roomType": "DBL",  "roomId": "201"  },  {  "roomType": "DBL",  "roomId": "202"  }  ]  }  ] | Example  bookings.json  [  {  "hotelId": "H1",  "arrival": "20240901",  "departure": "20240903",  "roomType": "DBL",  "roomRate": «Prepaid»  },  {  " hotelId ": "Н1",  " arrival ": "20240902",  " departure ": "20240905",  "roomType": "SGL",  "roomRate ": «Standard»  }  ] |
| Example  console input:    Availability (H1, 20240901, SGL)  Availability (H1, 20240901-20240903, DBL) |
| Output: the program should give the availability count for the specified room type and date range.  Note: hotels sometimes accept over bookings so the value can be negative to indicate this.  The program should exit when a blank line is entered.  Example output:  2  1 |
| General notes:  Try to code the challenge as you would approach any typical work task; we are not looking for you to show knowledge of frameworks or unusual programming language features. Most importantly, keep it simple. Computational complexity is not going to be a priority when the solution is evaluated.  If you use a language model (LLM) to complete this code test, please share the prompts you used. Be aware that we will ask detailed questions about both the solution and the prompts you submitted. | |