

In [ ]:

```
1 import json
2 import time
3 import sys
4
5 def load_json_file(filename):
6     try:
7         with open(filename, 'r') as file:
8             return json.load(file)
9     except FileNotFoundError:
10        print(f"Error: File '{filename}' not found.")
11        return {}
12    except json.JSONDecodeError:
13        print(f"Error: File '{filename}' is not valid JSON.")
14        return {}
15
16 def calculate_total_cost(price_catalogue, sales_record):
17     total_cost = 0
18     for sale in sales_record:
19         try:
20             product = sale['Product']
21             quantity = sale['Quantity']
22             for item in price_catalogue:
23                 if item['title'] == product:
24                     total_cost += item['price'] * quantity
25                     break
26             else:
27                 print(f"Warning: Product '{product}' not found in the price catalogue")
28         except KeyError:
29             print("Error: Invalid data format in sales record.")
30     return total_cost
31
32 def main():
33     start_time = time.time()
34
35     # Parse command line arguments
36     if len(sys.argv) != 3:
37         print("Usage: python computeSales.py priceCatalogue.json salesRecord.json")
38         return
39
40     price_catalogue_file = sys.argv[1]
41     sales_record_file = sys.argv[2]
42
43     # Load JSON files
44     price_catalogue = load_json_file(price_catalogue_file)
45     sales_record = load_json_file(sales_record_file)
46
47     # Calculate total cost
48     total_cost = calculate_total_cost(price_catalogue, sales_record)
49
50     # Print total cost
51     print(f"Total cost of all sales: ${total_cost:.2f}")
52
53     # Write results to file
54     with open("SalesResults.txt", 'w') as results_file:
55         results_file.write(f"Total cost of all sales: ${total_cost:.2f}\n")
56         elapsed_time = time.time() - start_time
57         results_file.write(f"Elapsed time: {elapsed_time:.2f} seconds\n")
58
59     # Print elapsed time
60     print(f"Elapsed time: {elapsed_time:.2f} seconds")
61
```

```
62 if __name__ == "__main__":  
63     main()  
64
```