

```

1 C:\Users\AlanKing\Miniconda3\envs\MOSDEX-test\python.exe C:/Users/AlanKing/Documents/GitHub/mosdex-
python/src/mosdex/generate_OSI.py
2 YES: Mosdex problem data\sailco_1-3.json is a valid instance of Mosdex schema data\MOSDEXSchemaV1-3-
ajk.json
3
4 **** Executing sailcoSolve ****
5
6 ***List the Tables***
7
8 **Modules**
9 module_name item_name class_name type_name table_name
10 -----
11 sailco demands DATA INPUT sailco_demands
12 sailco parameters DATA INPUT sailco_parameters
13 sailco regular VARIABLE CONTINUOUS sailco_regular
14 sailco extra VARIABLE CONTINUOUS sailco_extra
15 sailco inventory VARIABLE CONTINUOUS sailco_inventory
16 sailco ctCapacity CONSTRAINT LINEAR sailco_ctCapacity
17 sailco ctBoat CONSTRAINT LINEAR sailco_ctBoat
18 sailco ctBoat_1 CONSTRAINT LINEAR sailco_ctBoat_1
19 sailco totalCost OBJECTIVE LINEAR sailco_totalCost
20 sailco ctCapacity_regular TERM LINEAR sailco_ctCapacity_regular
21 sailco ctBoat_regular TERM LINEAR sailco_ctBoat_regular
22 sailco ctBoat_extra TERM LINEAR sailco_ctBoat_extra
23 sailco ctBoat_inventory TERM LINEAR sailco_ctBoat_inventory
24 sailco ctBoat_lagged_inventory TERM LINEAR sailco_ctBoat_lagged_inventory
25
26 **Metadata**
27 module_name item_name class_name name type usage key_type
28 -----
29 sailco demands DATA Periods INTEGER None KEY
30 sailco demands DATA Demands DOUBLE VALUE None
31 sailco parameters DATA Parameter STRING None KEY
32 sailco parameters DATA Value DOUBLE VALUE None
33 sailco regular VARIABLE Periods INTEGER None FOREIGN_KEY
34 sailco regular VARIABLE Name STRING None KEY
35 sailco regular VARIABLE LowerBound DOUBLE LOWER_BOUND None
36 sailco regular VARIABLE UpperBound DOUBLE UPPER_BOUND None
37 sailco regular VARIABLE Objective DOUBLE OBJECTIVE_COEFFICIENT None
38 sailco regular VARIABLE Value DOUBLE VARIABLE_VALUE None
39 sailco extra VARIABLE Periods INTEGER None FOREIGN_KEY
40 sailco extra VARIABLE Name STRING None KEY
41 sailco extra VARIABLE LowerBound DOUBLE LOWER_BOUND None
42 sailco extra VARIABLE UpperBound DOUBLE UPPER_BOUND None
43 sailco extra VARIABLE Objective DOUBLE OBJECTIVE_COEFFICIENT None
44 sailco extra VARIABLE Value DOUBLE VARIABLE_VALUE None
45 sailco inventory VARIABLE Periods INTEGER None FOREIGN_KEY
46 sailco inventory VARIABLE Name STRING None KEY
47 sailco inventory VARIABLE Inventory DOUBLE LOWER_BOUND None
48 sailco inventory VARIABLE UpperBound DOUBLE UPPER_BOUND None
49 sailco inventory VARIABLE Objective DOUBLE OBJECTIVE_COEFFICIENT None
50 sailco inventory VARIABLE Value DOUBLE VARIABLE_VALUE None
51 sailco ctCapacity CONSTRAINT Periods INTEGER None FOREIGN_KEY
52 sailco ctCapacity CONSTRAINT Name STRING None KEY
53 sailco ctCapacity CONSTRAINT Sense STRING SENSE None
54 sailco ctCapacity CONSTRAINT RHS DOUBLE RHS None
55 sailco ctCapacity CONSTRAINT Value DOUBLE CONSTRAINT_VALUE None
56 sailco ctBoat CONSTRAINT Periods INTEGER None FOREIGN_KEY
57 sailco ctBoat CONSTRAINT Name STRING None KEY
58 sailco ctBoat CONSTRAINT Sense STRING SENSE None
59 sailco ctBoat CONSTRAINT RHS DOUBLE RHS None
60 sailco ctBoat CONSTRAINT Value DOUBLE CONSTRAINT_VALUE None
61 sailco ctBoat_1 CONSTRAINT Periods INTEGER None FOREIGN_KEY
62 sailco ctBoat_1 CONSTRAINT Name STRING None KEY
63 sailco ctBoat_1 CONSTRAINT Sense STRING SENSE None
64 sailco ctBoat_1 CONSTRAINT RHS DOUBLE RHS None
65 sailco ctBoat_1 CONSTRAINT Value DOUBLE CONSTRAINT_VALUE None
66 sailco totalCost OBJECTIVE Value DOUBLE OBJECTIVE_VALUE None
67 sailco ctCapacity_regular TERM Name STRING None FOREIGN_KEY
68 sailco ctCapacity_regular TERM Name STRING None FOREIGN_KEY

```

69	sailco	ctCapacity_regular	TERM	Value	DOUBLE	MATRIX_ENTRY	None
70	sailco	ctBoat_regular	TERM	Name	STRING	None	FOREIGN_KEY
71	sailco	ctBoat_regular	TERM	Name	STRING	None	FOREIGN_KEY
72	sailco	ctBoat_regular	TERM	Value	DOUBLE	MATRIX_ENTRY	None
73	sailco	ctBoat_extra	TERM	Name	STRING	None	FOREIGN_KEY
74	sailco	ctBoat_extra	TERM	Name	STRING	None	FOREIGN_KEY
75	sailco	ctBoat_extra	TERM	Value	DOUBLE	MATRIX_ENTRY	None
76	sailco	ctBoat_inventory	TERM	Name	STRING	None	FOREIGN_KEY
77	sailco	ctBoat_inventory	TERM	Name	STRING	None	FOREIGN_KEY
78	sailco	ctBoat_inventory	TERM	Value	DOUBLE	MATRIX_ENTRY	None
79	sailco	ctBoat_lagged_inventory	TERM	Name	STRING	None	FOREIGN_KEY
80	sailco	ctBoat_lagged_inventory	TERM	Name	STRING	None	FOREIGN_KEY
81	sailco	ctBoat_lagged_inventory	TERM	Value	DOUBLE	MATRIX_ENTRY	None
82							
83	**Independent Variables (Columns)**						
84	module	variable	type	lower_bound	upper_bound	value	dual
85	-----	-----	-----	-----	-----	-----	-----
86	sailco	regular_1	CONTINUOUS	0	infinity	None	None
87	sailco	regular_2	CONTINUOUS	0	infinity	None	None
88	sailco	regular_3	CONTINUOUS	0	infinity	None	None
89	sailco	regular_4	CONTINUOUS	0	infinity	None	None
90	sailco	extra_1	CONTINUOUS	0	infinity	None	None
91	sailco	extra_2	CONTINUOUS	0	infinity	None	None
92	sailco	extra_3	CONTINUOUS	0	infinity	None	None
93	sailco	extra_4	CONTINUOUS	0	infinity	None	None
94	sailco	inventory_1	CONTINUOUS	0	infinity	None	None
95	sailco	inventory_2	CONTINUOUS	0	infinity	None	None
96	sailco	inventory_3	CONTINUOUS	0	infinity	None	None
97	sailco	inventory_4	CONTINUOUS	0	infinity	None	None
98							
99	**Dependent Variables (Rows)**						
100	module	variable	type	lower_bound	upper_bound	value	dual
101	-----	-----	-----	-----	-----	-----	-----
102	sailco	ctCapacity_1	LINEAR	infinity	40	None	None
103	sailco	ctCapacity_2	LINEAR	infinity	40	None	None
104	sailco	ctCapacity_3	LINEAR	infinity	40	None	None
105	sailco	ctCapacity_4	LINEAR	infinity	40	None	None
106	sailco	ctBoat_2	LINEAR	60	60	None	None
107	sailco	ctBoat_3	LINEAR	72	72	None	None
108	sailco	ctBoat_4	LINEAR	25	25	None	None
109	sailco	ctBoat_1	LINEAR	30	30	None	None
110	sailco	OBJECTIVE	LINEAR	infinity	infinity	None	None
111							
112	**Linear Expressions (Matrix Entries)**						
113	Module	Name	Name:1	Coefficient			
114	-----	-----	-----	-----			
115	sailco	ctCapacity_1	regular_1	1.0			
116	sailco	ctCapacity_2	regular_2	1.0			
117	sailco	ctCapacity_3	regular_3	1.0			
118	sailco	ctCapacity_4	regular_4	1.0			
119	sailco	ctBoat_2	regular_2	1.0			
120	sailco	ctBoat_2	extra_2	1.0			
121	sailco	ctBoat_2	inventory_2	-1.0			
122	sailco	ctBoat_2	inventory_1	1.0			
123	sailco	ctBoat_3	regular_3	1.0			
124	sailco	ctBoat_3	extra_3	1.0			
125	sailco	ctBoat_3	inventory_3	-1.0			
126	sailco	ctBoat_3	inventory_2	1.0			
127	sailco	ctBoat_4	regular_4	1.0			
128	sailco	ctBoat_4	extra_4	1.0			
129	sailco	ctBoat_4	inventory_4	-1.0			
130	sailco	ctBoat_4	inventory_3	1.0			
131	sailco	ctBoat_1	regular_1	1.0			
132	sailco	ctBoat_1	extra_1	1.0			
133	sailco	ctBoat_1	inventory_1	-1.0			
134							
135	**KEYS**						
136	KEY:	sailco_demands_Periods					
137	DEPENDENCIES:						
138		sailco_regular_Periods					

```

139         sailco_extra_Periods
140         sailco_inventory_Periods
141         sailco_ctCapacity_Periods
142         sailco_ctBoat_Periods
143         sailco_ctBoat_1_Periods
144     KEY:     sailco_parameters_Parameter
145     DEPENDENCIES:
146     KEY:     sailco_regular_Name
147     DEPENDENCIES:
148         sailco_extra_Periods
149         sailco_inventory_Periods
150         sailco_ctCapacity_Periods
151         sailco_ctBoat_Periods
152         sailco_ctBoat_1_Periods
153         sailco_ctCapacity_regular_Name
154         sailco_ctCapacity_regular_Name
155         sailco_ctBoat_regular_Name
156         sailco_ctBoat_regular_Name
157         sailco_ctBoat_extra_Name
158         sailco_ctBoat_extra_Name
159         sailco_ctBoat_inventory_Name
160         sailco_ctBoat_inventory_Name
161         sailco_ctBoat_lagged_inventory_Name
162         sailco_ctBoat_lagged_inventory_Name
163     KEY:     sailco_extra_Name
164     DEPENDENCIES:
165         sailco_regular_Periods
166         sailco_inventory_Periods
167         sailco_ctCapacity_Periods
168         sailco_ctBoat_Periods
169         sailco_ctBoat_1_Periods
170         sailco_ctCapacity_regular_Name
171         sailco_ctCapacity_regular_Name
172         sailco_ctBoat_regular_Name
173         sailco_ctBoat_regular_Name
174         sailco_ctBoat_extra_Name
175         sailco_ctBoat_extra_Name
176         sailco_ctBoat_inventory_Name
177         sailco_ctBoat_inventory_Name
178         sailco_ctBoat_lagged_inventory_Name
179         sailco_ctBoat_lagged_inventory_Name
180     KEY:     sailco_inventory_Name
181     DEPENDENCIES:
182         sailco_regular_Periods
183         sailco_extra_Periods
184         sailco_ctCapacity_Periods
185         sailco_ctBoat_Periods
186         sailco_ctBoat_1_Periods
187         sailco_ctCapacity_regular_Name
188         sailco_ctCapacity_regular_Name
189         sailco_ctBoat_regular_Name
190         sailco_ctBoat_regular_Name
191         sailco_ctBoat_extra_Name
192         sailco_ctBoat_extra_Name
193         sailco_ctBoat_inventory_Name
194         sailco_ctBoat_inventory_Name
195         sailco_ctBoat_lagged_inventory_Name
196         sailco_ctBoat_lagged_inventory_Name
197     KEY:     sailco_ctCapacity_Name
198     DEPENDENCIES:
199         sailco_regular_Periods
200         sailco_extra_Periods
201         sailco_inventory_Periods
202         sailco_ctBoat_Periods
203         sailco_ctBoat_1_Periods
204         sailco_ctCapacity_regular_Name
205         sailco_ctCapacity_regular_Name
206         sailco_ctBoat_regular_Name
207         sailco_ctBoat_regular_Name
208         sailco_ctBoat_extra_Name

```

```
209          sailco_ctBoat_extra_Name
210          sailco_ctBoat_inventory_Name
211          sailco_ctBoat_inventory_Name
212          sailco_ctBoat_lagged_inventory_Name
213          sailco_ctBoat_lagged_inventory_Name
214      KEY:      sailco_ctBoat_Name
215      DEPENDENCIES:
216          sailco_regular_Periods
217          sailco_extra_Periods
218          sailco_inventory_Periods
219          sailco_ctCapacity_Periods
220          sailco_ctBoat_1_Periods
221          sailco_ctCapacity_regular_Name
222          sailco_ctCapacity_regular_Name
223          sailco_ctBoat_regular_Name
224          sailco_ctBoat_regular_Name
225          sailco_ctBoat_extra_Name
226          sailco_ctBoat_extra_Name
227          sailco_ctBoat_inventory_Name
228          sailco_ctBoat_inventory_Name
229          sailco_ctBoat_lagged_inventory_Name
230          sailco_ctBoat_lagged_inventory_Name
231      KEY:      sailco_ctBoat_1_Name
232      DEPENDENCIES:
233          sailco_regular_Periods
234          sailco_extra_Periods
235          sailco_inventory_Periods
236          sailco_ctCapacity_Periods
237          sailco_ctBoat_Periods
238          sailco_ctCapacity_regular_Name
239          sailco_ctCapacity_regular_Name
240          sailco_ctBoat_regular_Name
241          sailco_ctBoat_regular_Name
242          sailco_ctBoat_extra_Name
243          sailco_ctBoat_extra_Name
244          sailco_ctBoat_inventory_Name
245          sailco_ctBoat_inventory_Name
246          sailco_ctBoat_lagged_inventory_Name
247          sailco_ctBoat_lagged_inventory_Name
248
249 Process finished with exit code 0
250
```