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1 C:\Users\AlanKing\Miniconda3\envs\MOSDEX-test\
  python.exe C:/Users/AlanKing/Documents/GitHub/
  MOSDEX-python/src/read.py
2 YES: Mosdex problem sailco_1-3.json is a valid
  instance of Mosdex schema MOSDEXSchemaV1-3-ajk.json
3
4 ALGORITHM      ['sailcoSolve']
5 MODULE         ['sailco']
6
7 sailco
8 TERM           ['ctCapacity_regular', 'ctBoat_regular
  ', 'ctBoat_extra', 'ctBoat_inventory', '
  ctBoat_lagged_inventory']
9 CONSTRAINT     ['ctCapacity', 'ctBoat', 'ctBoat_1']
10 VARIABLE      ['regular', 'extra', 'inventory']
11 OBJECTIVE     ['totalCost']
12 DATA         ['periods', 'demands', 'parameters', '
  production']
13
14 **** Executing sailcoSolve ****
15
16 ***List the Tables***
17
18 **metadata_table**
19 module_name|item_name                |class_name|name
           |type    |usage
20 -----|-----|-----|-----
           |-----|-----|-----|
21 sailco    |periods                |DATA      |
  Periods   |INTEGER|KEY
22 sailco    |demands                |DATA      |
  Periods   |INTEGER|FOREIGN_KEY
23 sailco    |demands                |DATA      |
  Demands   |DOUBLE |VALUE
24 sailco    |parameters             |DATA      |Name
           |STRING |KEY
25 sailco    |parameters             |DATA      |
  Value     |DOUBLE |VALUE

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26	sailco	regular	VARIABLE	
	Periods	INTEGER FOREIGN_KEY		
27	sailco	regular	VARIABLE	
	Column	STRING  KEY		
28	sailco	regular	VARIABLE	
	LowerBound	DOUBLE  VALUE		
29	sailco	regular	VARIABLE	
	UpperBound	DOUBLE  VALUE		
30	sailco	regular	VARIABLE	
	Objective	DOUBLE  VALUE		
31	sailco	regular	VARIABLE	
	Value	DOUBLE  VALUE		
32	sailco	extra	VARIABLE	
	Periods	INTEGER FOREIGN_KEY		
33	sailco	extra	VARIABLE	
	Column	STRING  KEY		
34	sailco	extra	VARIABLE	
	LowerBound	DOUBLE  VALUE		
35	sailco	extra	VARIABLE	
	UpperBound	DOUBLE  VALUE		
36	sailco	extra	VARIABLE	
	Objective	DOUBLE  VALUE		
37	sailco	extra	VARIABLE	
	Value	DOUBLE  VALUE		
38	sailco	inventory	VARIABLE	
	Periods	INTEGER FOREIGN_KEY		
39	sailco	inventory	VARIABLE	
	Column	STRING  KEY		
40	sailco	inventory	VARIABLE	
	Inventory	DOUBLE  VALUE		
41	sailco	inventory	VARIABLE	
	UpperBound	DOUBLE  VALUE		
42	sailco	inventory	VARIABLE	
	Objective	DOUBLE  VALUE		
43	sailco	inventory	VARIABLE	
	Value	DOUBLE  VALUE		
44	sailco	ctCapacity	CONSTRAINT	
	Periods	INTEGER FOREIGN_KEY		

45	sailco	ctCapacity	CONSTRAINT Row
		STRING  KEY	
46	sailco	ctCapacity	CONSTRAINT
	Sense	STRING  SENSE	
47	sailco	ctCapacity	CONSTRAINT RHS
		DOUBLE  VALUE	
48	sailco	ctBoat	CONSTRAINT
	Periods	INTEGER FOREIGN_KEY	
49	sailco	ctBoat	CONSTRAINT Row
		STRING  KEY	
50	sailco	ctBoat	CONSTRAINT
	Sense	STRING  SENSE	
51	sailco	ctBoat	CONSTRAINT RHS
		DOUBLE  VALUE	
52	sailco	ctBoat_1	CONSTRAINT
	Periods	INTEGER FOREIGN_KEY	
53	sailco	ctBoat_1	CONSTRAINT Row
		STRING  KEY	
54	sailco	ctBoat_1	CONSTRAINT
	Sense	STRING  SENSE	
55	sailco	ctBoat_1	CONSTRAINT RHS
		DOUBLE  VALUE	
56	sailco	totalCost	OBJECTIVE
	Value	DOUBLE  OBJECTIVE_VALUE	
57	sailco	ctCapacity_regular	TERM  Row
		STRING  FOREIGN_KEY	
58	sailco	ctCapacity_regular	TERM
	Column	STRING  FOREIGN_KEY	
59	sailco	ctCapacity_regular	TERM
	Value	DOUBLE  VALUE	
60	sailco	ctBoat_regular	TERM  Row
		STRING  FOREIGN_KEY	
61	sailco	ctBoat_regular	TERM
	Column	STRING  FOREIGN_KEY	
62	sailco	ctBoat_regular	TERM
	Value	DOUBLE  VALUE	
63	sailco	ctBoat_extra	TERM  Row
		STRING  FOREIGN_KEY	

64	sailco	ctBoat_extra	TERM	
	Column	STRING  FOREIGN_KEY		
65	sailco	ctBoat_extra	TERM	
	Value	DOUBLE  VALUE		
66	sailco	ctBoat_inventory	TERM	Row
		STRING  FOREIGN_KEY		
67	sailco	ctBoat_inventory	TERM	
	Column	STRING  FOREIGN_KEY		
68	sailco	ctBoat_inventory	TERM	
	Value	DOUBLE  VALUE		
69	sailco	ctBoat_lagged_inventory	TERM	
	CtBoat	STRING  FOREIGN_KEY		
70	sailco	ctBoat_lagged_inventory	TERM	
	Column	STRING  FOREIGN_KEY		
71	sailco	ctBoat_lagged_inventory	TERM	
	Value	DOUBLE  VALUE		
72				
73	**modules_table**			
74	module_name	item_name	class_name	
	type_name	table_name		
75	-----	-----	-----	---
	-----	-----		
76	sailco	periods	DATA	
	INPUT	sailco_periods		
77	sailco	demands	DATA	
	INPUT	sailco_demands		
78	sailco	parameters	DATA	
	INPUT	sailco_parameters		
79	sailco	regular	VARIABLE	
	CONTINUOUS	sailco_regular		
80	sailco	extra	VARIABLE	
	CONTINUOUS	sailco_extra		
81	sailco	inventory	VARIABLE	
	CONTINUOUS	sailco_inventory		
82	sailco	ctCapacity	CONSTRAINT	
	LINEAR	sailco_ctCapacity		
83	sailco	ctBoat	CONSTRAINT	
	LINEAR	sailco_ctBoat		

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84 sailco      |ctBoat_1      |CONSTRAINT|
   LINEAR      |sailco_ctBoat_1
85 sailco      |totalCost      |OBJECTIVE  |
   LINEAR      |sailco_totalCost
86 sailco      |ctCapacity_regular |TERM      |
   LINEAR      |sailco_ctCapacity_regular
87 sailco      |ctBoat_regular  |TERM      |
   LINEAR      |sailco_ctBoat_regular
88 sailco      |ctBoat_extra    |TERM      |
   LINEAR      |sailco_ctBoat_extra
89 sailco      |ctBoat_inventory |TERM      |
   LINEAR      |sailco_ctBoat_inventory
90 sailco      |ctBoat_lagged_inventory |TERM      |
   LINEAR      |sailco_ctBoat_lagged_inventory
91
92 **sailco_ctBoat**
93 Period|Row      |Sense|RHS
94 -----|-----|-----|----
95 2      |ctBoat_2|==    |60.0
96 3      |ctBoat_3|==    |72.0
97 4      |ctBoat_4|==    |25.0
98
99 **sailco_ctBoat_1**
100 period|Row      |Sense|RHS
101 -----|-----|-----|----
102 1      |ctBoat_1|==    |30.0
103 1      |ctBoat_1|==    |50.0
104 1      |ctBoat_1|==    |62.0
105 1      |ctBoat_1|==    |15.0
106
107 **sailco_ctBoat_extra**
108 Row      |Column |Coefficient
109 -----|-----|-----
110 ctBoat_1|extra_1|1.0
111 ctBoat_2|extra_2|1.0
112 ctBoat_3|extra_3|1.0
113 ctBoat_4|extra_4|1.0
114

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115 **sailco_ctBoat_inventory**
116 Row      |Column      |Coefficient
117 -----|-----|-----
118 ctBoat_1|inventory_1|-1.0
119 ctBoat_2|inventory_2|-1.0
120 ctBoat_3|inventory_3|-1.0
121 ctBoat_4|inventory_4|-1.0
122
123 **sailco_ctBoat_lagged_inventory**
124 CtBoat   |Column      |Coefficient
125 -----|-----|-----
126 ctBoat_2|inventory_1|1.0
127 ctBoat_3|inventory_2|1.0
128 ctBoat_4|inventory_3|1.0
129
130 **sailco_ctBoat_regular**
131 Row      |Column      |Coefficient
132 -----|-----|-----
133 ctBoat_1|regular_1|1.0
134 ctBoat_2|regular_2|1.0
135 ctBoat_3|regular_3|1.0
136 ctBoat_4|regular_4|1.0
137
138 **sailco_ctCapacity**
139 period|Row      |Sense|RHS
140 -----|-----|-----|-----
141 1      |ctCapacity_1|<=   |40.0
142 2      |ctCapacity_2|<=   |40.0
143 3      |ctCapacity_3|<=   |40.0
144 4      |ctCapacity_4|<=   |40.0
145
146 **sailco_ctCapacity_regular**
147 Row      |Column      |Coefficient
148 -----|-----|-----
149 ctCapacity_1|regular_1|1.0
150 ctCapacity_2|regular_2|1.0
151 ctCapacity_3|regular_3|1.0
152 ctCapacity_4|regular_4|1.0

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153
154 **sailco_demands**
155 period|demand
156 -----|-----
157 1      |40.0
158 2      |60.0
159 3      |72.0
160 4      |25.0
161
162 **sailco_extra**
163 period|Column |LowerBound|UpperBound|Objective|
    Value
164 -----|-----|-----|-----|-----|---
    --
165 1      |extra_1|0.0      |infinity  |450.0    |0.0
166 2      |extra_2|0.0      |infinity  |450.0    |0.0
167 3      |extra_3|0.0      |infinity  |450.0    |0.0
168 4      |extra_4|0.0      |infinity  |450.0    |0.0
169
170 **sailco_inventory**
171 period|Column      |LowerBound|UpperBound|Objective
    |Value
172 -----|-----|-----|-----|-----
    |-----
173 1      |inventory_1|0.0      |infinity  |450.0
    |0.0
174 2      |inventory_2|0.0      |infinity  |450.0
    |0.0
175 3      |inventory_3|0.0      |infinity  |450.0
    |0.0
176 4      |inventory_4|0.0      |infinity  |450.0
    |0.0
177
178 **sailco_parameters**

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179 name                |value
180 -----|-----
181 regularCost          |400.0
182 extraCost            |450.0
183 capacity              |40.0
184 initialInventory     |10.0
185 inventoryCost         |20.0
186
187 **sailco_periods**
188 period
189 -----
190 1
191 2
192 3
193 4
194
195 **sailco_regular**
196 period|Column    |LowerBound|UpperBound|Objective|
      Value
197 -----|-----|-----|-----|-----|
      ----
198 1      |regular_1|0.0      |infinity  |400.0    |0
      .0
199 2      |regular_2|0.0      |infinity  |400.0    |0
      .0
200 3      |regular_3|0.0      |infinity  |400.0    |0
      .0
201 4      |regular_4|0.0      |infinity  |400.0    |0
      .0
202
203 **sailco_totalCost**
204 SUM( sailco_regular.objective * sailco_regular.
      value + sailco_extra.objective * sailco_extra.
      value + sailco_inventory.objective *
      sailco_inventory.value )
205 -----
      -----
      -----

```



205 ----

206 0.0

207

208 \*\*singletons\_table\*\*

209

210

211 Process finished with exit code 0

212