Model API Design (For SLS engineer team)

1. Request Method:

The program language is Golang.

    1. import module : onlineContainerLoadingModel

    2.call function: onlineContainerLoadingModel.load()

1. Function Input Variables：

onlineContainerLoadingModel.load()

Variable Name	Data Type	Description	example	nullable/zero value
checkoutId	string	checkout id or request id	"bastketi-fdfaf-fda--dfdaf1343"	False

containerMaxDim	struct
	
	  length float
	
	  width float
	
	  height float
		the dimension of biggest container.	containerMaxDim.length = 120
			containerMaxDim.height =140
			containerMaxDim.width =160
				False

skuList	slice of struct
	
	struct:
	
	  skuId string
	
	  length float
	
	  width float
	
	  height float
		multiple SKU in the checkout request.
		
		At most 200 SKU in a checkout request. Otherwise return an error
			[sku1, sku2, sku3]
			sku1.skuId = "123dfffdd-3242-111"
			sku1.length = 10
			sku1.width = 20
			sku1.width = 30
				False

2.Function Output Variables：

onlineContainerLoadingModel.load()

Variable Name	Data Type	Description

containerDim	struct:
	
	  length float
	
	  width float
	
	  height float
		An container struct has three attributes:
		
		  1. length
		
		  2. width
		
		  3. height

error	go error type	Error type:
		1. No feasible solution (SKUs are too big to pack in a container)
		2. Wrong input data. (input data of model is wrong)
		3. Too many SKUs (SKUs are more than 200 in a checkout request)
		4. nil (no error)
latency	float	latency time; example: 0.002(2ms).

skuPositions	slice of struct
	
	  skuId string
	
	  startHeight float
	
	  startLength float
	
	  startWidth float
	
	  endHeight float
	
	  endLength float
	
	  endWidth float
		This variable records positions of SKUs in the checkout request
		
		each struct fixes position of a SKU by its left-front-bottom and right-behind-top points.