Store product

Check hashing\_key[id\_product]. Check product on belt. If belt has product it will print “product XXXX is on belt”. If product has position it will print “now: product has been stored”. Check slot in warehouse. If row and slot in warehouse is occupied it will print “Slot is occupied” but if row and slot is not in warehouse it will add product by Warehouse.add() function and rehash id product.

1XXXX

hashing\_key(id\_product)

warehouse

row

slot

If product on belt

print “now: product XXXX is on belt.”

If rehash\_key(id\_product) != “ ”

print “product has been stored”

Check slot in warehouse

Warehouse.checkSlot(raw,slot)

If != “ ”:

print “slot is occupied”

else:

warehouse.add Product (id\_product,row,slot)

rehash\_key [id\_product]=[id\_product]

Retrive product

Check rehash\_key[id\_product]. If empty print “slot is empty. Cannot retrieve the product” else hashing\_key(from position\_new of product) because we don’t know where is it now remove product from warehouse to belt. New product on the belt (use function belt.retrieve(product\_id)).

|  |  |
| --- | --- |
| rehashkey[Id\_product] | position\_new |
| A103 | Y595 |
| A104 | “ ” |
| … | … |
| Y595 | A104 |

0XXXX

Y595

Robot take product to belt

rehash\_key[id\_product] = “Belt”

belt.retrieve(id\_product)

Warehouse.removeProduct(id\_product,row,slot)

hashing\_key (positon\_new) or (product\_id)

warehouse

row

slot

30000

Check product in belt if count of product in belt = 0 print “The belt is empty” else print “Retrievefirst product from belt” rehash\_key[first product in belt] = “” . Delete first product in belt. delete 1 count of product and print “count of product in line”

3000

if self.item\_in\_line == 0:

print (The belt is empty)

else:

print ("Retrieve” +self.in\_belt[0])

r.rehash\_key[self.in\_belt[0]] = " "  
 del self.in\_belt[0]  
 self.item\_in\_line -= 1

print (“the belt now has”+ str(self.item\_in\_line))

5XXXX search of product

Check if r.rehash\_key[product\_id] not equal empty print “position of product” else print “not found”

if r.rehash\_key[product\_id1] != " ":  
 print("Found the product at " +r.rehash\_key[product\_id1])  
else:  
 print("Product not found")

5XXXX