

1. Reverse String

Java

```
public class ReverseString {  
    public static void main(String[] args) {  
        String input = "retlaohS";  
        char[] output = new char[input.length()];  
        for(int i = input.length() - 1, j = 0; i >= 0; i--, j++) {  
            output[j] = input.charAt(i);  
        }  
        String reversed = new String(output);  
        System.out.println(reversed);  
    }  
}
```

2. Packing

SQL

```
SELECT user_code, count(tote_number) as num_packed  
FROM order_tote_process_log  
WHERE CAST(process_date as time) >= '10:00:00' AND CAST(process_date as  
time) <= '10:59:59'  
AND action_code = 'PACKED'  
AND user_code <> 'SYS' -- optional clause  
GROUP BY user_code  
;
```

Expected Output from given data:

user_code	num_packed
P1	1

3. Warehouse

Python

```
def calculate_max_quantity(box_length, box_width, box_height,  
product_length, product_width, product_height):  
    # in python 3, // is integer division, rounds down to nearest integer  
    length_constraint = box_length // product_length  
    width_constraint = box_width // product_width  
    height_constraint = box_height // product_height  
  
    max_quantity = length_constraint * width_constraint * height_constraint  
    return max_quantity
```

4. Logistics

5. Data Migration