

## Dương Minh Phương

### Part 2:

#### **Program runs:**

- Step 1: Print the menu and get choice from user.
- Step 2: With selection, program will run each method.
- Step 3: Run Step 1.
- **What is stored in the static heap, stack, dynamic heap?**
- Static heap, the class objects and static variables are stored.
- Stack, the method calls, local variables, and object references are stored.
- Dynamic heap, the objects are stored.
- **What are objects in the program?**
- The objects in the program are item and sc.
- **What is the item variable storing?**
- May be Vase, Statue, Painting.
- **Why must you cast to call the method inputVase()/outputVase()?**
- Because this method is defined on Vase class, and we need to cast the object to that type in order to access the method.
- If you don't do this, the compiler would not know which method to call and would raise an error.
- **What is the error thrown when you cast it wrong?**
- It's ClassCastException. - What methods can you call if you don't cast the item variable? - It's input and output.