Exercise: Factory Method

B.I.G

Best in Games (B.I.G.) is a new slot machine manufacturer in Reno which is started by disgruntled employees of Bally, IGT and Gametech whose non-compete clauses recently expired.

B.I.G. seeks to offer slot machines at a significantly reduced price than their competitors and they seek to do this due to a more optimized software process for creating slot machines.

B.I.G aims to develop 3 different types of slot machines:
- Straight Slots - are slot machines that only play slot games and pay out on the standard pay table.
- Progressive Slots - progressive slots are linked to with other groups of machines in the same casino, or sometimes even groups of machines across a lot of casinos.
- Bonus Game Slots - offer extra games when you get a certain combination of symbols on the reels. These extra games give you the chance to win extra money for no extra bets.

B.I.G aims to develop slot machines locally in the following states:
- New Jersey
- Nevada
- Washington

and each state has different configuration with regard to the slot machine components.
 Every slot machine consists of four different physical components ("ingredients"):
1) a cabinet
2) a system to receive payments from the user
3) a display
4) a CPU

Slot machines are also shipped with a particular operating system. See the table on the next page for the specific configurations for each type of slot and state.

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	Straight	Bonus	Progressive
Nevada Cabinet Display Payment GPU OS	Large reels ticketinticketout ARM Linux	Small CRT ticketinticketout X86 Linux	Medium LCD ticketinticketout X77 Android
New Jersey Cabinet Display Payment GPU OS	Small LCD coins ARM Windows ME	Large reels coins ARM Windows ME	Small CRT bills X86 Windows XP
Washington Cabinet Display Payment GPU OS	Large reels bills ARM Linux	Medium VGA ticketinticketout ARM Symbian	Large reels coins ARM Android

Assignments:
1) reread the Factory Method example for the PizzaStore (page 120-134).
2) Start with a class diagram.
3) Using the book example try to implement a software system to support the development of slot machines using the Factory Method.
Here is some sample output:

```
java SlotMachineApp

The Taj Mahal orders a:
--- Making a New Jersey style Bonus Slot Machine ---
fetching components:  Large Cabinet, coin validator, reels display, ARM
assembling components
testing hardware
uploading software: Windows ME
testing software
wrapping slot machine in Newspaper and have cousin Vinnie drop it off

 The Peppermill orders a:
--- Making a Nevada style Progressive Slot Machine ---
fetching components:  Medium cabinet, TicketinTicketout validator,
LCD display, X77 CPU
assembling components
testing hardware
uploading software:Android
testing software
```