Chapter 1: Configuring a Spring Development Environment

| 🖟 Java SE Development Kit 8 Update 91 (64-bit) - Custom Setup 🛛 🛛 🗙 | | | | |
|---|--|----------|---|--|
| Java Boracce | | | | |
| | ures to install from the li g the Add/Remove Progra | | | of features after |
| Developme Source Cod Public JRE | | | Feature Description Java SE Develope Update 91 (64-bi JavaFX SDK, a per the Java Mission suite. This will re your hard drive. | ment Kit 8 it), including the rivate JRE, and Control tools |
| C:\Program Files\Ja | va\jdk1.8.0_91\ | | | Change |
| | | < Back | Next > | Cancel |
| New System Variable | | | | × |
| Variable name: Variable value: | JAVA_HOME C:\Program Files\Java\jdk1 | 1.8.0_91 | | |
| Browse Directory | Browse File | | ОК | Cancel |

Edit environment variable

| C:\ProgramData\Oracle\Java\javapath | New |
|--|-----------|
| C:\Program Files (x86)\Intel\iCLS Client\ | |
| C:\Program Files\Intel\iCLS Client\ | Edit |
| %SystemRoot%\system32 | Luit |
| %SystemRoot% | _ |
| %SystemRoot%\System32\Wbem | Browse |
| %SYSTEMROOT%\System32\WindowsPowerShell\v1.0\ | |
| C:\Program Files\Intel\Intel(R) Management Engine Components\ | Delete |
| C:\Program Files (x86)\Intel\Intel(R) Management Engine Compon | |
| C:\Program Files\Intel\Intel(R) Management Engine Components\ | |
| C:\Program Files (x86)\Intel\Intel(R) Management Engine Compon | Move Up |
| C:\Program Files (x86)\ATI Technologies\ATI.ACE\Core-Static | l |
| %JAVA_HOME%\bin | Move Down |
| %M2_HOME%\bin | Move Down |
| | |
| | |
| | Edit text |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| OK | Cancel |
| | |

| Rpache Tomcat Setup: Java Virtual Machine par Java Virtual Machine Java Virtual Machine path selection. | h selection: | - | | × |
|---|-----------------|-------------|------|----|
| Please select the path of a Java SE 7.0 or later JRE | installed on yo | our system. | | |
| C:\Program Files\Java\jre1.8.0_91 | | | | |
| Nullsoft Install System v2,51 | | | | |
| | < Back | Next > | Cano | el |

| CNew Maven Ru | New Maven Runtime | | |
|----------------------|------------------------------|----------|-----------------|
| Specify attributes | s for a Maven installation | | |
| Installation type: | ● External ○ Workspace | | |
| Installation home: | C:\Program Files\apache-mave | en-3.3.9 | Directory |
| Installation name: | apache-maven-3.3.9 | | |
| Additional extension | on libraries: | | |
| | | | Project |
| | | | Remove |
| | | | Up |
| | | | Down |
| | | | Restore Default |
| 0 | | Finish | Cancel |

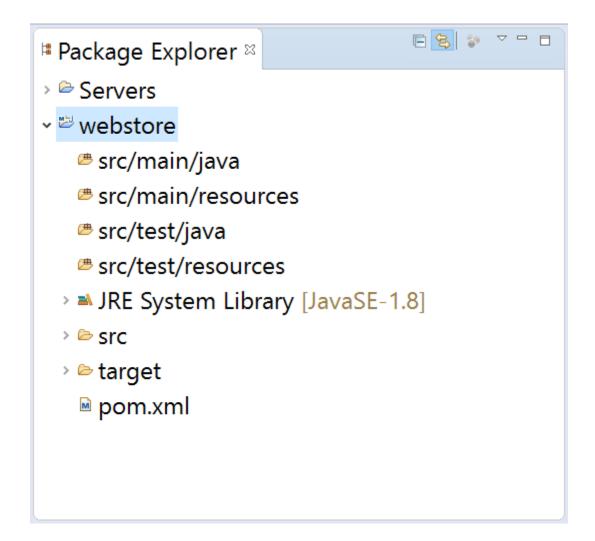
| 💋 New S | erver Runtime Er | nvironment | Capture | | | × |
|--|------------------|----------------|-------------|--------|-------------|------------|
| New Ser | ver Runtime E | nvironment | | | | |
| Define a | new server runti | me environment | | | | |
| | | | ✓ Show down | loadab | le server a | adapters |
| Select the | type of runtime | environment: | | | | |
| tomcat | | | | | | <i>G</i> _ |
| 🗄 Apa | che Tomcat v3.2 | | | | | ~ |
| | che Tomcat v4.0 | | | | | |
| 🗄 Apa | che Tomcat v4.1 | | | | | |
| 🗄 Apa | che Tomcat v5.0 | | | | | |
| 🗄 Apa | che Tomcat v5.5 | | | | | |
| 🗄 Apa | che Tomcat v6.0 | | | | | |
| 🗄 Apa | che Tomcat v7.0 | | | | | |
| 🗄 Apa | che Tomcat v8.0 | | | | | ~ |
| Apache Tomcat v8.0 supports J2EE 1.2, 1.3, 1.4, and Java EE 5, 6, and 7 Web modules. | | | | | | |
| ⊡ Create a new local server | | | | | | |
| ? | < Back | Next > | Finish | | Cano | el |

| 💋 Ne | ew Server Runtime En | vironment | | | | × |
|--------|--------------------------|------------------|---------------|-------|-------------|--------|
| Tomo | at Server | | | | | - |
| Spec | ify the installation dir | ectory | | | | |
| Name | : | | | | | |
| Apac | ne Tomcat v8.0 | | | | | |
| Tomca | t installation director | y: | | | | |
| C:\Pro | ogram Files\Apache S | oftware Foundati | on\Tomcat 8.0 | | Browse | |
| | | | | Downl | oad and I | nstall |
| JRE: | | | | | | |
| Work | oench default JRE | | ~ | Ins | stalled JRE | s |
| | | | | | | |
| | | | | | | |
| ? | < Back | Next > | Finish | | Cancel | |

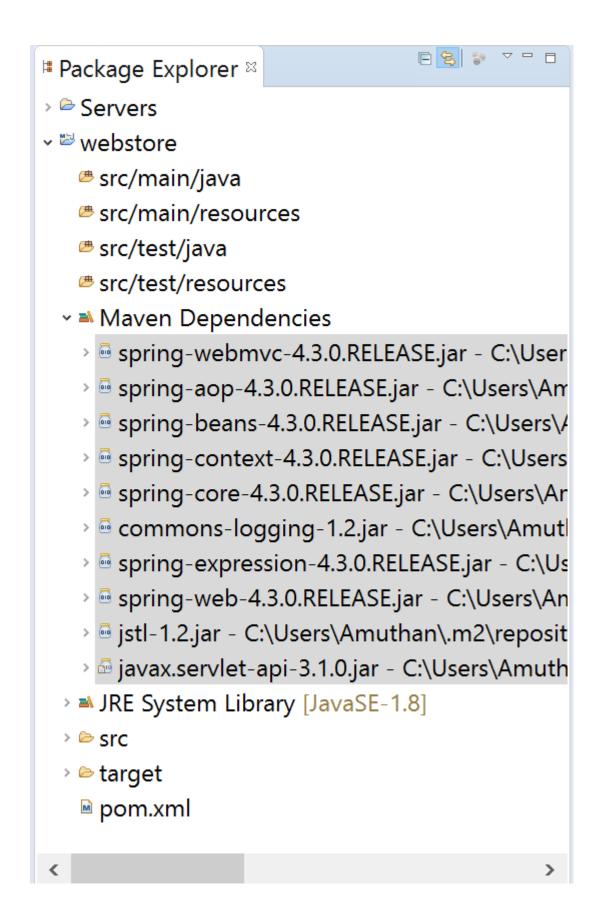
| 🖉 New Project | | | × |
|-----------------------------------|------|--------|---|
| Select a wizard | | | |
| Create a Maven Project | | | |
| Wizards: | | | |
| type filter text | | | |
| > 🖻 General | | | ^ |
| > 🗁 AspectJ | | | |
| > 🖻 Eclipse Modeling Framework | | | |
| > 🗁 EJB | | | |
| > 🖻 Java | | | |
| > 🗁 Java EE | | | |
| > 🖻 JavaScript | | | |
| > 🗁 JAXB | | | |
| > 🗁 JPA | | | |
| ✓ Maven | | | |
| Check out Maven Projects from SCM | | | |
| Maven Module | | | |
| Maven Project | | | |
| Plug-in Development | | | • |
| | | | |
| | | | |
| | | | |
| ? < Back Next > Finish | | Cancel | |

| 🕏 New Ma | ven Project | | | | | × |
|--------------|-----------------|--------|--------|---|--------|-------|
| New Mave | en project | | | | | M |
| Configure | project | | | | | |
| Artifact | | | | | | |
| Group Id: | com.packt | | | | | ~ |
| Artifact Id: | webstore | | | | | ~ |
| Version: | 0.0.1-SNAPSH(> | | | | | |
| Packaging: | war ~ | | | | | |
| Name: | | | | | | ~ |
| Description: | | | | | | ~ |
| | | | | | | ~ |
| Parent Proje | ct | | | | | |
| Group Id: | | | | | | ~ |
| Artifact Id: | | | | | | ~ |
| Version: | ~ |] | | I | Browse | Clear |
| • Advanced | | | | | | |
| | | | | | | |
| | | | | | | |
| ? | < Back | Vext > | Finish | | Can | cel |
| | | | | | | |

| 🖻 webstore/p | oom.xml ¤ | |
|----------------|-----------------------------|--------------------|
| Overviev | v | |
| Artifact | | |
| Group Id: | com.packt | |
| Artifact Id: * | webstore | |
| Version: | 0.0.1-SNAPSHOT | |
| Packaging: | war 🗸 | |
| • Parent | Add property X | ۵ 🗳 |
| • Propertie | S | |
| | Name: maven.compiler.source | Create |
| | Value: 1.8 | Remove |
| • Modules | OK Cancel | New module element |



| 💋 Select De | ependency | | | × |
|---------------|---|-------|-----------|-----|
| | Γ | | | |
| Group Id: * | org.springframework | | | |
| Artifact Id:* | spring-webmvc | | | |
| Version: | 4.3.0.RELEASE | Scope | compile | • ~ |
| | old, artifactId or sha1 prefix or pattern ownloads are disabled, search results ults: | | ncomplete |). |
| ? | OK | | Cancel | |



Welcome
[⋈]

⇔ ⇔ ■

http://localhost:8080/webstore/

Welcome to Web Store!

~ 🕨 🖻

The one and only amazing web store

| 🕏 Run On Se | rver | | | | × | |
|--|--|-------------------------|-----------------|--------|-----|--|
| Run On Serv | /er | | | | | |
| Select which | server to use | | | | | |
| How do you w | ant to select the server? | | | | | |
| Choose an | existing server | | | | | |
| O Manually o | define a new server | | | | | |
| Select the serv | ver that you want to use: | | | | | |
| type filter text | | | | | | |
| Server | | State | | | | |
| 🗸 🗠 localhost | | E | | | | |
| 🖞 👘 Tomcat v | v8.0 Server at localhost | 🖥 Stopped | | | | |
| | | | | | | |
| Apache Tomca modules. | t v8.0 supports J2EE 1.2, ⁻ | 1.3, 1.4, and Java EE ! | 5, 6, and 7 Web | Colu | mns | |
| Always use this server when running this project | | | | | | |
| 0 | < Back | Next > | Finish | Cancel | | |

Selcome

♀ ♀ ■ ◈ http://localhost:8080/webstore/

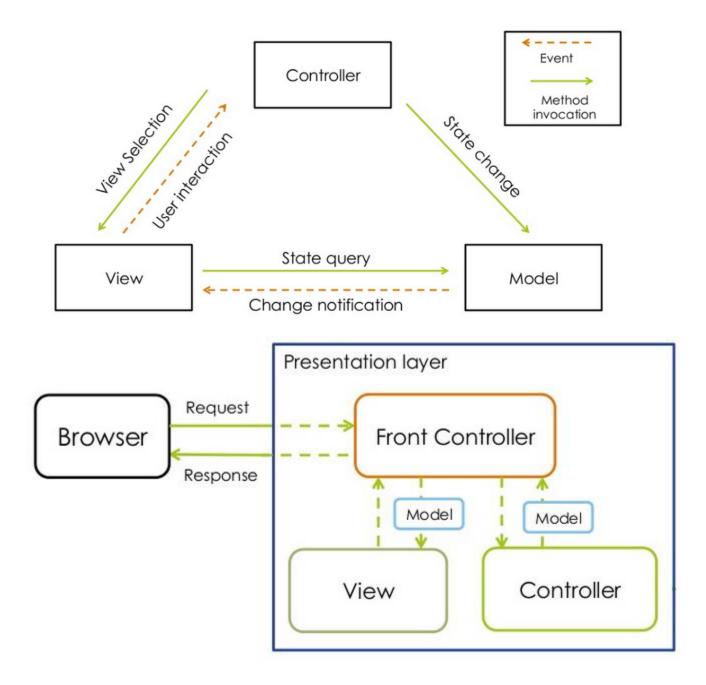
Welcome to Web Store!

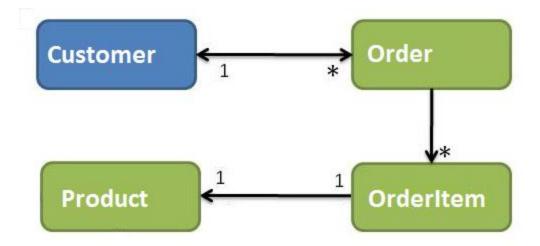
v 🕨 🖻

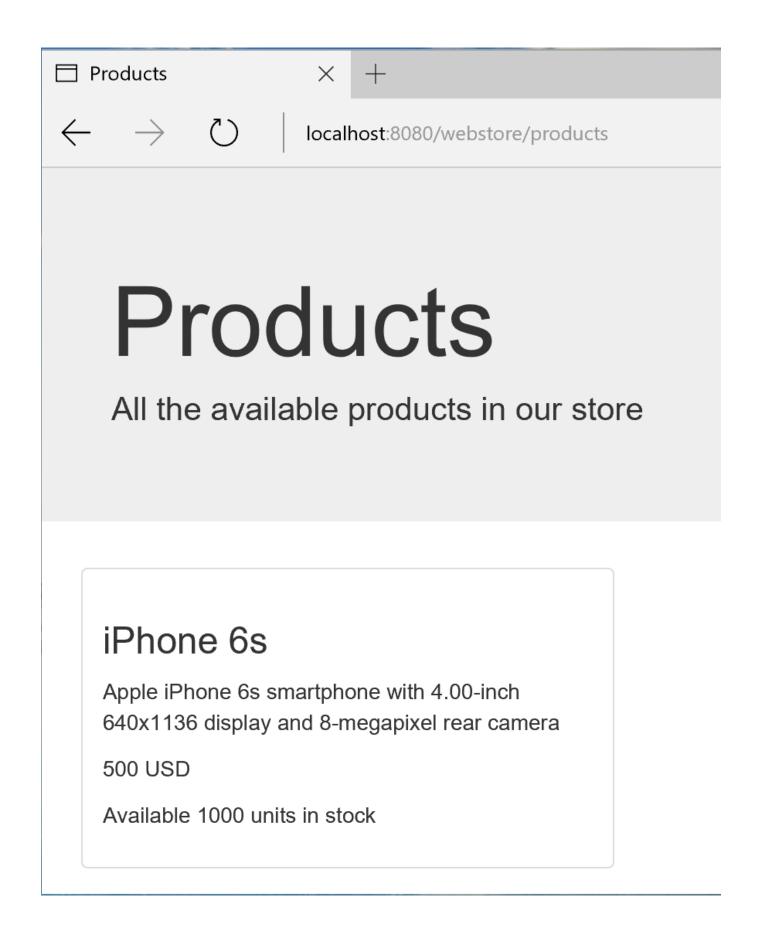
The one and only amazing web store

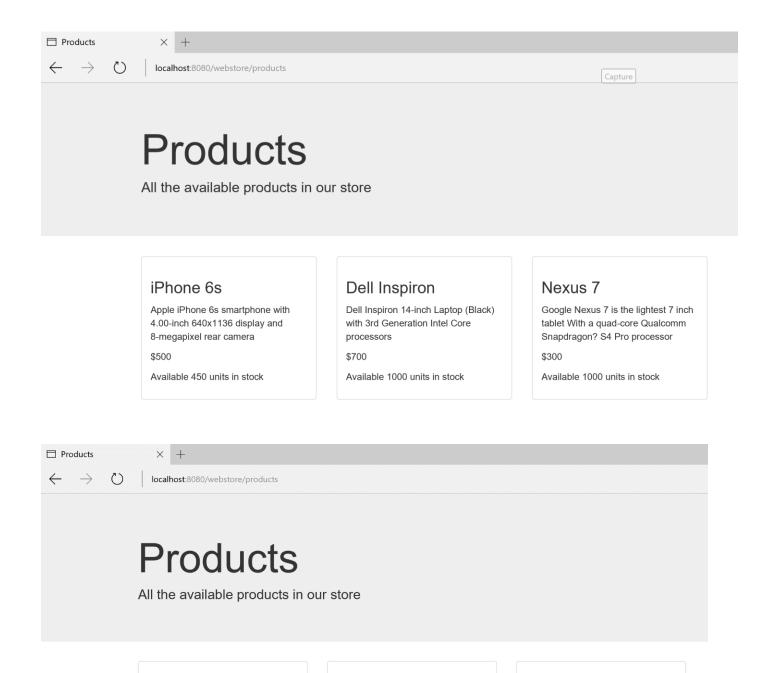
Chapter 2: Spring MVC Architecture – Architecting Your Web Store

| \Box Apache Tomcat/8.0.36 - $	imes$ | + | | | - | | × |
|---|--|-----------|-----|-----|-------|-----|
| \leftarrow \rightarrow \circlearrowright \mid loca | lhost:8080/webstore/welcome | | = | | ٩ | ••• |
| HTTP Status 404 | - /webstore/welco | me | | | | |
| type Status report | | | | | | - 1 |
| message <u>/webstore/welcome</u> description <u>The requested resource</u> | ce is not available. | | | | | |
| Apache Tomcat/8.0.36 | | | | | | |
| | webstore/products/search "application name" "Request path | | | | 8 | |
| \Box Apache Tomcat/8.0.36 - $	imes$ | + | | | - | | × |
| \leftarrow \rightarrow \circlearrowright \mid loca | lhost:8080/webstore/welcome | | = | 1 | ٩ | ••• |
| HTTP Status 404 | - /webstore/WEB-I | NF/views/ | wel | com | e.jsp | |
| message /webstore/WEB-INF/view | vs/welcome.jsp | | | | | |
| description The requested resource | <u>ce is not available.</u> | | | | | |
| Apache Tomcat/8.0.36 | | | | | | |









iPhone 6s

Apple iPhone 6s smartphone with 4.00-inch 640x1136 display and 8-megapixel rear camera

\$500

Available 1450 units in stock

Dell Inspiron

Dell Inspiron 14-inch Laptop (Black) with 3rd Generation Intel Core processors

\$700

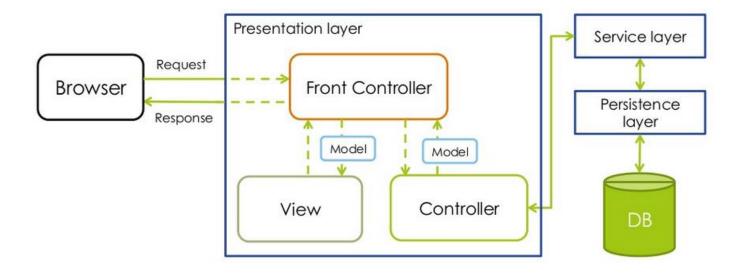
Available 1000 units in stock

Nexus 7

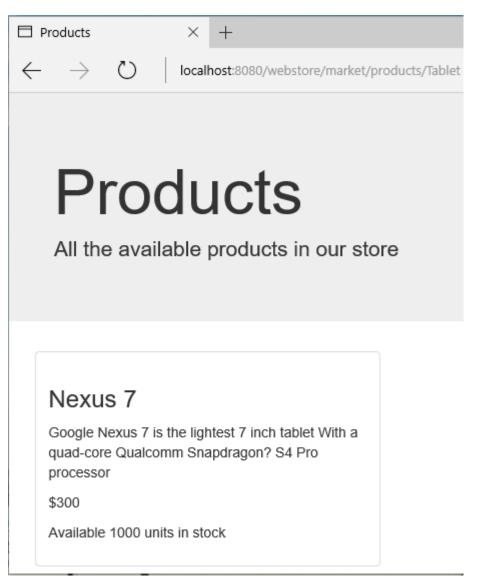
Google Nexus 7 is the lightest 7 inch tablet With a quad-core Qualcomm Snapdragon? S4 Pro processor

\$300

Available 1000 units in stock



Chapter 3: Control Your Store with Controllers



 $\leftarrow \rightarrow$

 \times +

localhost:8080/webstore/market/products/filter/params;brands=Google,Dell;categories=Tablet,Laptop

Products

All the available products in our store

Dell Inspiron

 \odot

Dell Inspiron 14-inch Laptop (Black) with 3rd Generation Intel Core processors

\$700

Available 1000 units in stock

Nexus 7

Google Nexus 7 is the lightest 7 inch tablet With a quad-core Qualcomm Snapdragon? S4 Pro processor

\$300

Available 1000 units in stock

| \Box Products \times + |
|--|
| \leftarrow \rightarrow \circlearrowright localhost:8080/webstore/market/product?id=P1234 |
| Products |
| |
| iPhone 6s |
| Apple iPhone 6s smartphone with 4.00-inch 640x1136 display and 8-megapixel rear camera |
| Item Code : P1234 |
| manufacturer : Apple |
| category : Smart Phone |
| Availble units in stock : 450 |
| 500 USD |
| T Order Now |



 $\leftarrow \rightarrow \circ$

 \times +

localhost:8080/webstore/market/products

Products

All the available products in our store

iPhone 6s

Apple iPhone 6s smartphone with 4.00-inch 640x1136 display and 8-megapixel rear camera

\$500

Available 1450 units in stock



Dell Inspiron

Dell Inspiron 14-inch Laptop (Black) with 3rd Generation Intel Core processors

\$700

Available 1000 units in stock

Details

Nexus 7

Google Nexus 7 is the lightest 7 inch tablet With a quad-core Qualcomm Snapdragon? S4 Pro processor

\$300

Available 1000 units in stock

Details

Chapter 4: Working with Spring Tag Libraries

Add new product

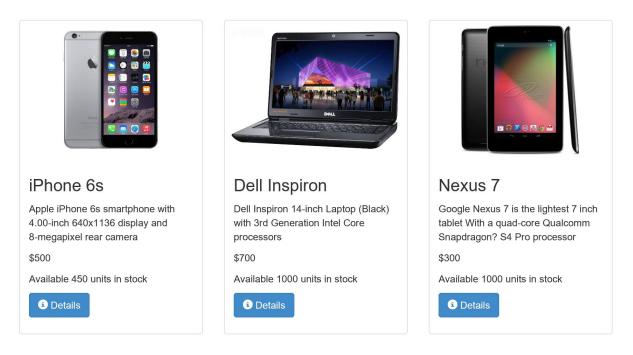
| Product Id | |
|---------------|-----------------|
| Name | |
| Unit Price | |
| Manufacturer | |
| Category | |
| Unit in Stock | 0 |
| Unit in Order | 0 |
| Description | |
| Discontinued | |
| Condition | Old Refurbished |
| | Add |

| Apache Tomcat/8.0.30 - Er 🗙 | * | _ | | × |
|--|-------------|-------|---|-----|
| ← → C □ localhost:8080/webstore/market/products/add | ŝ | 2 | 0 | @ ≡ |
| HTTP Status 500 - Request processing failed; nested java.lang.RuntimeException: Attempting to bind disa <mark>unitsInOrder,discontinued</mark> | | - | | |
| type Exception report | | | | |
| message Request processing failed; nested exception is java.lang.RuntimeException: Attempting to bind di unitsInOrder, discontinued | sallowed fi | elds: | | |
| description The server encountered an internal error that prevented it from fulfilling this request. | | | | |
| exception | | | | + |

Chapter 5: Working with View Resolver

Products

All the available products in our store



Products



Dell Inspiron

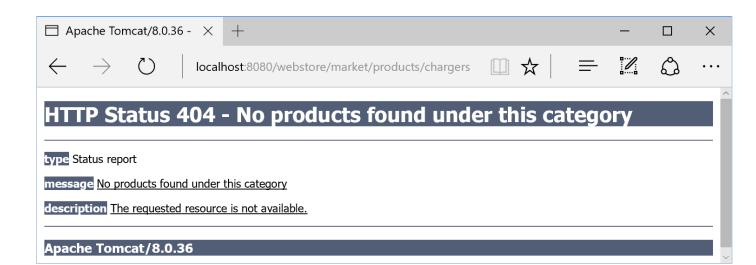
Dell Inspiron 14-inch Laptop (Black) with 3rd Generation Intel Core processors



එ back 🛛 🚽 Order Now

| Produc | cts | | | | |
|---|--|--------------------------------|------------------------|---|---------------|
| | | <i> </i> Choose File to Upload | | | × |
| Add products | | ← → · ↑ 🖡 « webap | p > resources > images | V ひ Search images | Q |
| | | Organize • New folder | | | · 🗆 🕐 |
| | | 🚺 Music 🔷 | | ^ | _ |
| | | a OneDrive | P1235 | | |
| Add new product | | 👃 Books | | | |
| New Product ID | P1237 | Documents Finance Distance | | | |
| Name | MDR Head Phone | Pictures Projects | P1236 | |) |
| Unit Price | 250 | 🧢 This PC | | | |
| Manufacturer | Sony | Network Homegroup | P1237 | | |
| Category | Headphone | · | 11237 | · | |
| Units in stock | 1000 | File name: | P1237 | All Files (*.*) Open | Cancel |
| Description | With Built-in Noise cancellation | | | | .: |
| Condition | New Oold ORefurbished | | | | |
| Product Image file | | Browse | | | |
| | Add | | | | |
| Attp://localho | ost:8080/webstore/market/pro | oduct.xml?id=P1235 🔎 🗸 | C 🙋 localhost | × Capture | |
| <product></product> <category>Lap</category> <condition>Net</condition> <description>D</description> <discontinued></discontinued> <manufacturer:< li=""> <name>Dell Ir</name> <productid>P1</productid> <unitprice>700</unitprice> <unitsinorder></unitsinorder> </manufacturer:<> | ell Inspiron 14-inch false >Dell nspiron 235 | Laptop (Black) with | 3rd Generation Int | tel Core processors<, | /description> |

```
C
            localhost:8080/webstore/market/product.json?id=P1235
←
                                                                                              Capture
{
 "product" : {
    "productId" : "P1235",
    "name" : "Dell Inspiron",
    "unitPrice" : 700,
    "description" : "Dell Inspiron 14-inch Laptop (Black) with 3rd Generation Intel Core processors",
    "manufacturer" : "Dell",
    "category" : "Laptop",
    "unitsInStock" : 1000,
    "unitsInOrder" : 0,
    "discontinued" : false,
    "condition" : "New"
 }
}
```



Attp://localhost:8080/webstore/market/prod P - C

×

___ ₩ ☆ ₩ 🙂

Х

There is no product found with the Product id P1000

http://localhost:8080/webstore/market/product?id=P1000

com.packt.webstore.exception.ProductNotFoundException

ூ products

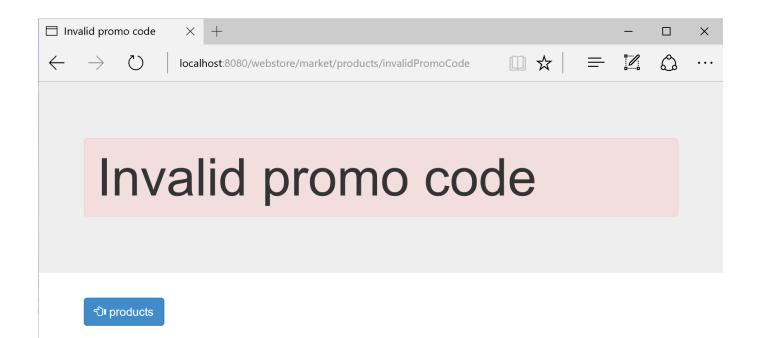
4

Chapter 6: Internalize Your Store with Interceptor

= x 🔌 🔓 🛛 🕬 🦊 🛃 🔍 💌 💌 🔗

che Tomcat] C:\Program Files\Java\jre1.8.0_73\bin\javaw.exe (Apr 9, 2016, 11:07:13 PM)
ProcessingTimeLogInterceptor:28 - 20 millisecond taken to process the request http://localhost:8080/webstore/.
ProcessingTimeLogInterceptor:28 - 21 millisecond taken to process the request http://localhost:8080/webstore/market/products.
ProcessingTimeLogInterceptor:28 - 25 millisecond taken to process the request http://localhost:8080/webstore/market/products.

| Products × | | ± _ | | × |
|-------------------------------|--|------------|----|---|
| ← → C | webstore/market/products/add?language=en | | 53 | |
| Produc Add products | | English Du | | |
| Add new product | | | | 1 |
| New Product ID | | | | I |
| Name | | | | |
| Unit Price | | | | |
| Manufacturer | | | | 1 |
| Category | | | | |
| Units in stock | 0 | | | 1 |
| Description | | | | l |
| Condition | New Old Refurbished | | | |
| Product Image file | Choose File No file chosen | | | |
| | Add | | | a |





 \times +

localhost:8080/webstore/market/products

Products

All the available products in our store



iPhone 6s

Apple iPhone 6s smartphone with 4.00-inch 640x1136 display and 8-megapixel rear camera

\$500

Available 450 units in stock

i Details



Dell Inspiron

Dell Inspiron 14-inch Laptop (Black) with 3rd Generation Intel Core processors

\$700

Available 1000 units in stock





Nexus 7

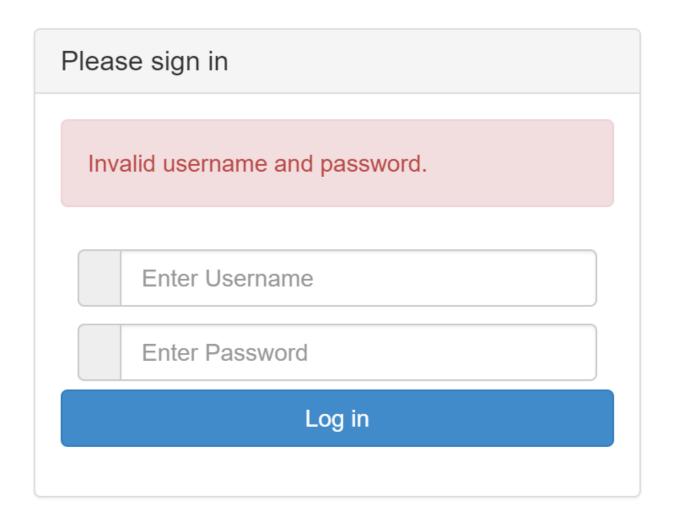
Google Nexus 7 is the lightest 7 inch tablet With a quad-core Qualcomm Snapdragon? S4 Pro processor

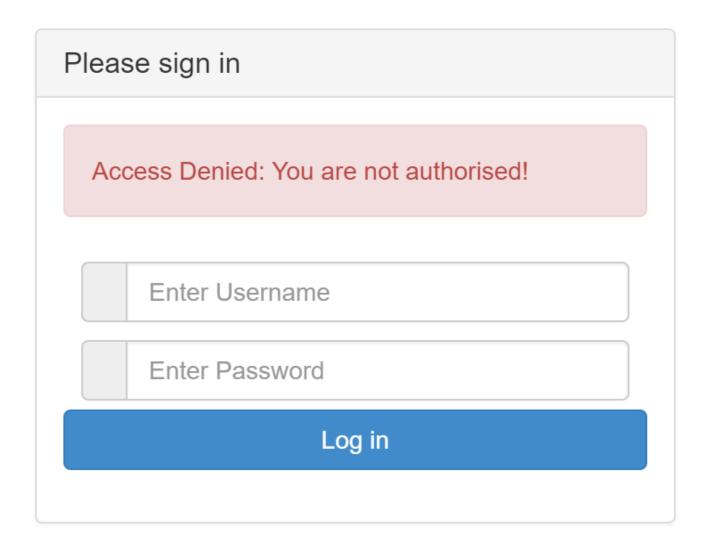
\$300

Available 1000 units in stock

i Details

Chapter 7: Incorporating Spring Security





Chapter 8: Validate Your Products with a Validator

Add new product

| | d start with character P followe | to maximum 50 characters long. d by number. |
|--------------------|----------------------------------|--|
| New Product ID | | Invalid product ID. It should start with character P followed by number. |
| Name | | Invalid product name. It should be minimum 4 characters to maximum 50 characters long. |
| Unit Price | | Unit price is Invalid. It cannot be empty. |
| Manufacturer | | |
| Category | | |
| Units in stock | 0 | |
| Description | | |
| Condition | Old Refurbished | |
| Product Image file | Choose File No file chose | en |
| | Add | |

Add new product

| A product already exists wi | th this product id. | |
|-----------------------------|---------------------------|--|
| | 24004 | |
| New Product ID | P1234 | A product already exists with this product id. |
| Name | Sony Head Phone | |
| Unit Price | 250 | |
| Manufacturer | | |
| Category | | |
| Units in stock | 0 | |
| Description | 1 | |
| Condition | Old Refurbished | |
| Product Image file | Choose File No file chose | en |
| | Add | |

Add new product

| You cannot add more than 99 units if the unit price is greater than 1000. | | | | |
|---|--|--|--|--|
| New Product ID | P1237 | | | |
| Name | Sony Head Phone | | | |
| Unit Price | 1500 | | | |
| Manufacturer | Sony | | | |
| Category | Head phones | | | |
| Units in stock | 150 | | | |
| Description | With built-in noise canceling technology | | | |
| Condition | New Old Refurbished | | | |
| Product Image file | Choose File No file chosen | | | |
| | Add | | | |

Add new product

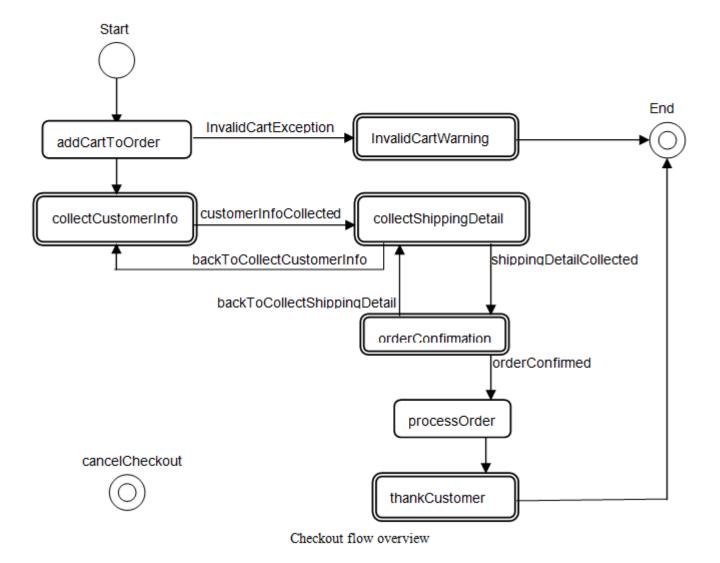
| Invalid product name. It should be minimum 4 characters to maximum 50 characters long. A product already exists with this product id. You cannot add more than 99 units if the unit price is greater than 1000. | | | | |
|---|--|--|--|--|
| New Product ID | P1234 | A product already exists with this product id. | | |
| Name | | Invalid product name. It should be minimum 4 characters to maximum 50 characters long. | | |
| Unit Price | 1500 | | | |
| Manufacturer | Sony | | | |
| Category | Head phones | | | |
| Units in stock | 150 | | | |
| Description | With built-in noise canceling technology | | | |
| Condition | ●New Old ORefurbished | | | |
| Product Image file | Choose File No file chose | en | | |
| | Add | | | |

Chapter 9: Give REST to Your Application with Ajax

| OVERVIEW | REVIEWS | SUPP | ORT | RELATED | G+1 |
|--------------------------------------|---|--|--------------------------------------|----------------------------------|--|
| | | | | | |
| | | Collaborate with | Cloud | | F Runs Offline Compatible with your device |
| | er Import 🕞 | Builder Team Library | 8 🤇 | enc De V D | Supercharge your API workflow with Postman! Build, test, and document your APIs faster. More than a million developers already do |
| (G. Type | - 13 | | | Refresh Libnary Team Settings | Supercharge your API workflow with Postman! |
| Cine Cine | time mailers posts 0 autoritaire | Add description für better docs | Alex J V Verse di Falle | View Docs Subscribe | Build, test, and document your APIs faster. |
| Coper 3 reg | nBucket outsts 9 subscribers | A simple API to store & retrieve JSON object Requires an API key to use. You can request View/more | S Akaburg Bint View & Edit | View Docs Subscribe | More than a million developers already do. |
| Philip Philip 7 reg | ps Hue Bulbs nexts 2 suberribers | Add description flue better docs | Abhinav Visor & Billi | View Docs | The idea for Postman arose while the founders were working together, and were |
| Pinp 4 reg | dom Status - Postman Labs | This collection allows you to monitor the status of services provided by Postman. The View micro | Stamasis Bhattacharya Vane Only | View Docs Subscribe | For the second and the data and the second s |
| | man API Bin gonts 3 salashbers | A collection which echos back the requests made. | Parvan Ramal View Only | View Docs Subscribe | Website Report Abuse |
| | tman Cloud Analytics units 2 subarriters | Add description for better docs | Ankit Sabri Vess II, Totti | View Docs Subscribe | Additional Information |
| Con Post | rman Echo (shamasified) rovata 4 admirritoris | Postman Echo is service you can use to test your REST clients and make sample API calls View more | Shamasis Bhattacharya Vese & toto | View Docs Subscribe | Version: 4.2.2 Updated: May 31, 2016 |
| | | | | | > |
| Runn | er Import | С+ в | uilder | Team Library | |
| Runn | | В | uilder | Team Library | |
| | 8080/web: + | Dcalhost:8080/web | | | |
| ttp://localhost: | *8080/web: + | ocalhost:8080/web | ostore/rest/ | | No environment |
| ttp://localhost: | *8080/web: + http://w Headers (| ocalhost:8080/web | ostore/rest/ | cart Params lest Script Tests | No environment Send Save |
| POST Authorization | *8080/web: + http://w Headers (| ocalhost:8080/web | ostore/rest/ Pre-requ raw | cart Params lest Script Tests | No environment Send Save Generate Code |
| POST Authorizatior of form-dat | *8080/web: + http://d Headers (a x-www-f 'dd": "111", 'cartItems" : : | ocalhost:8080/web | ostore/rest/ Pre-requ raw | cart Params lest Script Tests | No environment Send Save Generate Code |

| | | | | - 0 | × |
|---|-----------------------------|--------------------------|------------------|-------------------|--------|
| Runner | Import 📑 Bui | lder Team Library | * | | ~ |
| http://localhost:8080/we | b: + | | No | environment 🗸 🗸 🗸 | © |
| put 🗸 | http://localhost:8080/webst | ore/rest/cart/111 Param | s Send | ✓ Save | ~ |
| Authorization He | eaders (1) Body • | Pre-request Script Tests | 5 | Generate (| Code |
| form-data | x-www-form-urlencoded | • raw • binary JSON | (application/jso | n) 🗸 | |
| 1 * { 2 * "id": "1 3 * "cartIte 4 * 5 6 7 7 8 8 9 10 * 11 12 13 14 15] 16 } | <pre>111", ems" : [</pre> | | | | |
| | | | | | |
| ិ Cart | × | | Amuthan | - 0 | × |
| _ | | core/cart/0CFCC12FS |) 1BF6B3A5(| 087公 🕐 🚺 | |
| Apps 🔺 Bookma | rks 📋 pay check 📋 | GE healthcare | > | > 🦲 Other bool | kmarks |
| Cart All the se | lected products | s in your cart | | ≓ Check o | put |
| Product | Unit price | Qauntity | Price | Action | |
| P1234-iPhone | 6s 500 | 1 | 500 | X Remove | |
| | | Grand Total | 500 | | |
| | | | | | |
| භ Continue shop | oping | | | | |

Chapter 10: Float Your Application with Web Flow



Customer

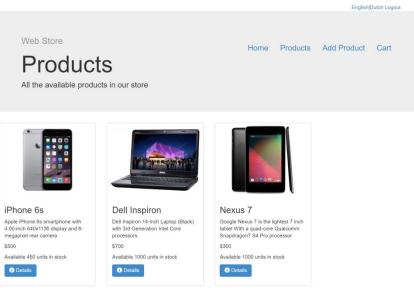
Customer details

Customer Details

| Name | John Doe |
|--------------|----------------------|
| Door No | Apt # 2A |
| Street Name | 1808 Continental Ave |
| Area Name | Lisle |
| State | IL |
| country | USA |
| Zip Code | 60532 |
| Phone Number | 302 409 3309 |
| | Add Cancel |

| Rec | eipt | | |
|--|--------------|-----------------|----------|
| Shipping Address John Doe 305,4625 Lake Trail Dr, Lisle,IL USA,60563 | Shipping Dat | eDate: Oct | 10, 2016 |
| Billing Address John Doe Apt # 2A,1808 Continental Ave Lisle,IL USA,60532 P: 302 409 3309 | | | |
| Product | # | Price | Total |
| iPhone 6s | 2 | \$500 | \$1000 |
| Dell Inspiron | 1 | \$700 | \$700 |
| Nexus 7 | 1 | \$300 | \$300 |
| | | Grand Total: | \$2000 |
| back Confirm > Cancel | | | |

Chapter 11: Template with Tiles



© Company 2016

Chapter 12: Testing Your Application

| ∎JUnit ¤ | | | |
|---------------------------------|-------------------------|---|---|
| Finished after 0.0 | 016 seconds | | |
| Runs: 1/1 | Errors: 0 | ■ Failures: | 1 |
| - Som.packt.we | ebstore.domain.Ca | rtltemTest [Runner: JUni | it 4] (0.0 ≡ Failure Trace |
| | | | it_price_ ½java.lang.AssertionError: expected:<500> but was:<0> |
| | | | ≡ at com.packt.webstore.domain.CartItemTest.cartItem_tota |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| < | | | > <> |
| | | | |
| | | | 0 0 🗗 🖓 🖓 🔳 🗮 🗸 🗸 👘 |
| r#JUnit ¤ | | | |
| a®JUnit ¤ Finished after 0.0 |)16 seconds | | |
| Finished after 0.0 | 016 seconds | ■ Failures: | |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | ■ Failures: rtltemTest [Runner: JUni | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |
| Finished after 0.0 Runs: 1/1 | [■] Errors: 0 | | 0 |

| | ^เ บ JUn | it 🛛 | | | | | | | | | | | | | | | | Ð | Ŷ | × | | Q | R | | 0- | • | $\overline{\nabla}$ | |
|----|--|--------------|---------|--------|-----|----|-------|-----|-----|-------|--------|------|------|-------|------|------|------|-------|------|-------|---|---|---|--|----|---|---------------------|--|
| Fi | nishe | d after 6.27 | 2 seco | onds | | | | | | | | | | | | | | | | | | | | | | | | |
| | Runs: | 3/3 | | 🛛 Erro | rs: | 0 | | | × | l Fai | lures: | 0 | | | | | | | | | | | | | | | | |
| | com.packt.webstore.domain.ProductTest [Runner: JUnit 4] (6.178 s) product_with_existing_productId_invalid (6.176 s) | | | | | | | | | | | _ | Fail | lure | Trac | 2 | | | *8 | | | | | | | | | |
| | a_valid_product_should_not_get_any_error_during_validation (0.000 s) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 撞 produ | ict_wit | hout_ | pro | du | ctId_ | and | _Un | itPri | ice_ar | nd_c | ateg | gory_ | _sho | uld_ | shou | ıld_ł | e_ir | nvali | d | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| - | | | | | | | | I | 11 | | | | | | | | | | | | • | | | | | | | |