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MATERIA: Arquitectura Empresarial

LABORATORIO: 009_relaciones_products

2. Creación de productos: Crear al menos 20 productos utilizando el endpoint correspondiente.

Incluye capturas de postman de al menos una creación exitosa y de tu base de datos con los 20 productos creados

The screenshot shows the Postman interface. A POST request is being made to `http://localhost:8080/api/products`. The request body contains the following JSON:

```
1 "name": "Banano",
2 "price": 1.5,
3 "stock": 5
```

The response status is 200 OK, with a timestamp of 2025-11-29T21:54:18.7369387. The response body is identical to the request body.

The screenshot shows the H2 Console interface connected to the database `jdbc:h2:mem:productdb`. A query is run: `SELECT * FROM products;`. The results are displayed in a table:

ID	CREATED_AT	UPDATED_AT	NAME	PRICE	STOCK
1	2025-11-29 21:54:18.736939	2025-11-29 21:54:18.736939	Banano	1.5	5
2	2025-11-29 21:58:02.147866	2025-11-29 21:58:02.147866	Manzana	0.75	9
3	2025-11-29 22:01:38.099411	2025-11-29 22:01:38.099411	Pera	0.8	7
4	2025-11-29 22:01:48.200603	2025-11-29 22:01:48.200603	Naranja	0.6	5
5	2025-11-29 22:01:56.911228	2025-11-29 22:01:56.911228	Uva	2.0	9
6	2025-11-29 22:02:06.086581	2025-11-29 22:02:06.086581	Sandía	3.5	4
7	2025-11-29 22:02:13.389986	2025-11-29 22:02:13.389986	Melón	3.25	6
8	2025-11-29 22:02:21.283866	2025-11-29 22:02:21.283866	Durazno	1.75	3
9	2025-11-29 22:02:30.955136	2025-11-29 22:02:30.955136	Ciruela	1.65	2
10	2025-11-29 22:02:41.673108	2025-11-29 22:02:41.673108	Mango	1.9	9
11	2025-11-29 22:02:50.416863	2025-11-29 22:02:50.416863	Piña	2.4	5
12	2025-11-29 22:03:00.752797	2025-11-29 22:03:00.752797	Coco	2.75	7
13	2025-11-29 22:03:07.733213	2025-11-29 22:03:07.733213	Frutilla	2.1	8
14	2025-11-29 22:03:16.140178	2025-11-29 22:03:16.140178	Kiwi	1.95	4
15	2025-11-29 22:03:22.17885	2025-11-29 22:03:22.17885	Papaya	1.3	6
16	2025-11-29 22:03:28.548533	2025-11-29 22:03:28.548533	Guavaba	0.95	5

3. Creación de facturas: Crear 5 facturas, cada una asociada a 2 productos. Adjunta capturas de postman de al menos una creación exitosa (invoice e invoice_detail). Así como también una captura de tu base de datos.

The screenshot shows the Postman interface with a successful API call. The request URL is `http://localhost:8080/api/invoices`. The request method is `POST`. The request body is a JSON object:

```

1  "id": 1,
2  "client_ci": "0102030401",
3  "client_name": "Cliente 1",
4  "client_address": "Quito",
5  "total_before_taxes": 0,
6  "taxes": 0,
7  "total_after_taxes": 0
8

```

The response status is `200 OK` with a response time of `40 ms` and a response size of `416 B`.

The screenshot shows the H2 Console interface with the following SQL statement:

```
SELECT * FROM invoices;
```

The table structure is:

ID	CREATED_AT	UPDATED_AT	CLIENT_ADDRESS	CLIENT_CI	CLIENT_NAME	TAXES	TOTAL_AFTER_TAXES	TOTAL_BEFORE_TAXES
1	2025-11-29 22:33:14.190757	2025-11-29 22:33:14.190757	Quito	0102030401	Cliente 1	0.0	0.0	0.0
2	2025-11-29 22:37:17.157837	2025-11-29 22:37:17.157837	Quito	0102030402	Cliente 2	0.0	0.0	0.0
3	2025-11-29 22:37:25.860844	2025-11-29 22:37:25.860844	Guayaquil	0102030403	Cliente 3	0.0	0.0	0.0
4	2025-11-29 22:37:33.64703	2025-11-29 22:37:33.64703	Cuenca	0102030404	Cliente 4	0.0	0.0	0.0
5	2025-11-29 22:37:41.105029	2025-11-29 22:37:41.105029	Ambato	0102030405	Cliente 5	0.0	0.0	0.0

(5 rows, 1 ms)

Home Workspaces Explore Search Postman Sign In Create Account

History New Import POST http://localhost:8080/api/invoice-details POST http://localhost:8080/api/invoice-details POST http://localhost:8080/api/invoice-details

HTTP http://localhost:8080/api/invoice-details

POST http://localhost:8080/api/invoice-details

Params Authorization Headers (8) Body Body JSON Cookies Beautify

```

1  {
2   "product_id": 1,
3   "invoice_id": 1
4 }
5
6  {
7   "product_id": 2,
8   "invoice_id": 1
9 }

```

Body Cookies Headers (5) Test Results 200 OK 7 ms 419 B Save Response

Pretty Raw Preview Visualize JSON

Create collections in Postman Use collections to save your requests and share them with others.

Create a Collection

Console Not connected to a Postman account

localhost:8080/h2-console/login.do?jsessionid=64229f9bfc4d4b14295dc26ebf3e8242

Auto commit Max rows: 1000 Auto complete Off Auto select On

jdbc:h2:mem:productdb Run Run Selected Auto complete Clear SQL statement:

INVOICES INVOICE_DETAILS PRODUCTS PRODUCTS_INVOICE_DET/ INFORMATION_SCHEMA Users H2 2.3.232 (2024-08-11)

SELECT * FROM invoice_details;

ID	CREATED_AT	UPDATED_AT	TOTAL_PRICE	INVOICE_ID	PRODUCT_ID
3	2025-11-29 22:53:30.108585	2025-11-29 22:53:30.108585	0.0	1	1
4	2025-11-29 22:53:49.740286	2025-11-29 22:53:49.740286	0.0	1	2
5	2025-11-29 22:58:17.840319	2025-11-29 22:58:17.840319	0.0	2	3
6	2025-11-29 22:58:27.460382	2025-11-29 22:58:27.460382	0.0	2	4
7	2025-11-29 22:58:37.960332	2025-11-29 22:58:37.960332	0.0	3	5
8	2025-11-29 22:58:45.009027	2025-11-29 22:58:45.009027	0.0	3	6
9	2025-11-29 22:58:52.54749	2025-11-29 22:58:52.54749	0.0	4	7
10	2025-11-29 22:58:58.872936	2025-11-29 22:58:58.872936	0.0	4	8
11	2025-11-29 22:59:06.517356	2025-11-29 22:59:06.517356	0.0	5	9
12	2025-11-29 22:59:18.792633	2025-11-29 22:59:18.792633	0.0	5	10

(10 rows, 1 ms)

4. Consulta de las facturas. 5 capturas, una por factura creada con al menos dos productos cada una.

```
3 |     "id": 1,
4 |     "client_ci": "0102030401",
5 |     "client_name": "Cliente 1",
6 |     "client_address": "Quito",
7 |     "total_before_taxes": 0.0,
8 |     "taxes": 0.0,
9 |     "total_after_taxes": 0.0,
10|     "invoice_details": [
11|         {
12|             "id": 3,
13|             "total_price": 0.0,
14|             "product": {
15|                 "id": 1,
16|                 "name": "Banano",
17|                 "price": 1.5,
18|                 "stock": 5,
19|                 "created_at": "2025-11-29T21:54:18.736939",
20|                 "updated_at": "2025-11-29T21:54:18.736939"
21|             },
22|             "created_at": "2025-11-29T22:53:30.108585",
23|             "updated_at": "2025-11-29T22:53:30.108585"
24|         },
25|         {
26|             "id": 4,
27|             "total_price": 0.0,
28|             "product": {
29|                 "id": 2,
30|                 "name": "Manzana",
31|                 "price": 0.75,
32|                 "stock": 9,
33|                 "created_at": "2025-11-29T21:58:02.147866",
34|                 "updated_at": "2025-11-29T21:58:02.147866"
35|             },
36|             "created_at": "2025-11-29T22:53:49.740286",
37|             "updated_at": "2025-11-29T22:53:49.740286"
38|         }
39|     ],
40|     "created_at": "2025-11-29T22:33:14.190757",
41|     "updated_at": "2025-11-29T22:33:14.190757"
```

```
44     "id": 2,
45     "client_ci": "0102030402",
46     "client_name": "Cliente 2",
47     "client_address": "Quito",
48     "total_before_taxes": 0.0,
49     "taxes": 0.0,
50     "total_after_taxes": 0.0,
51     "invoice_details": [
52         {
53             "id": 5,
54             "total_price": 0.0,
55             "product": {
56                 "id": 3,
57                 "name": "Pera",
58                 "price": 0.8,
59                 "stock": 7,
60                 "created_at": "2025-11-29T22:01:38.099411",
61                 "updated_at": "2025-11-29T22:01:38.099411"
62             },
63             "created_at": "2025-11-29T22:58:17.840319",
64             "updated_at": "2025-11-29T22:58:17.840319"
65         },
66         {
67             "id": 6,
68             "total_price": 0.0,
69             "product": {
70                 "id": 4,
71                 "name": "Naranja",
72                 "price": 0.6,
73                 "stock": 5,
74                 "created_at": "2025-11-29T22:01:48.200603",
75                 "updated_at": "2025-11-29T22:01:48.200603"
76             },
77             "created_at": "2025-11-29T22:58:27.460382",
78             "updated_at": "2025-11-29T22:58:27.460382"
79         }
80     ],
81     "created_at": "2025-11-29T22:37:17.157837",
82     "updated_at": "2025-11-29T22:37:17.157837"
```

```
85     "id": 3,
86     "client_ci": "0102030403",
87     "client_name": "Cliente 3",
88     "client_address": "Guayaquil",
89     "total_before_taxes": 0.0,
90     "taxes": 0.0,
91     "total_after_taxes": 0.0,
92     "invoice_details": [
93         {
94             "id": 7,
95             "total_price": 0.0,
96             "product": {
97                 "id": 5,
98                 "name": "Uva",
99                 "price": 2.0,
100                "stock": 9,
101                "created_at": "2025-11-29T22:01:56.911228",
102                "updated_at": "2025-11-29T22:01:56.911228"
103            },
104            "created_at": "2025-11-29T22:58:37.960332",
105            "updated_at": "2025-11-29T22:58:37.960332"
106        },
107        {
108            "id": 8,
109            "total_price": 0.0,
110            "product": {
111                "id": 6,
112                "name": "Sandia",
113                "price": 3.5,
114                "stock": 4,
115                "created_at": "2025-11-29T22:02:06.086581",
116                "updated_at": "2025-11-29T22:02:06.086581"
117            },
118            "created_at": "2025-11-29T22:58:45.009027",
119            "updated_at": "2025-11-29T22:58:45.009027"
120        }
121    ],
122    "created_at": "2025-11-29T22:37:25.860844",
123    "updated_at": "2025-11-29T22:37:25.860844"
```

```
126     "id": 4,
127     "client_ci": "0102030404",
128     "client_name": "Cliente 4",
129     "client_address": "Cuenca",
130     "total_before_taxes": 0.0,
131     "taxes": 0.0,
132     "total_after_taxes": 0.0,
133     "invoice_details": [
134         {
135             "id": 9,
136             "total_price": 0.0,
137             "product": {
138                 "id": 7,
139                 "name": "Melón",
140                 "price": 3.25,
141                 "stock": 6,
142                 "created_at": "2025-11-29T22:02:13.389986",
143                 "updated_at": "2025-11-29T22:02:13.389986"
144             },
145             "created_at": "2025-11-29T22:58:52.54749",
146             "updated_at": "2025-11-29T22:58:52.54749"
147         },
148         {
149             "id": 10,
150             "total_price": 0.0,
151             "product": {
152                 "id": 8,
153                 "name": "Durazno",
154                 "price": 1.75,
155                 "stock": 3,
156                 "created_at": "2025-11-29T22:02:21.283866",
157                 "updated_at": "2025-11-29T22:02:21.283866"
158             },
159             "created_at": "2025-11-29T22:58:58.872936",
160             "updated_at": "2025-11-29T22:58:58.872936"
161         }
162     ],
163     "created_at": "2025-11-29T22:37:33.64703",
164     "updated_at": "2025-11-29T22:37:33.64703"
```

```
167     "id": 5,
168     "client_ci": "0102030405",
169     "client_name": "Cliente 5",
170     "client_address": "Ambato",
171     "total_before_taxes": 0.0,
172     "taxes": 0.0,
173     "total_after_taxes": 0.0,
174     "invoice_details": [
175         {
176             "id": 11,
177             "total_price": 0.0,
178             "product": {
179                 "id": 9,
180                 "name": "Ciruela",
181                 "price": 1.65,
182                 "stock": 2,
183                 "created_at": "2025-11-29T22:02:30.955136",
184                 "updated_at": "2025-11-29T22:02:30.955136"
185             },
186             "created_at": "2025-11-29T22:59:06.517356",
187             "updated_at": "2025-11-29T22:59:06.517356"
188         },
189         {
190             "id": 12,
191             "total_price": 0.0,
192             "product": {
193                 "id": 10,
194                 "name": "Mango",
195                 "price": 1.9,
196                 "stock": 9,
197                 "created_at": "2025-11-29T22:02:41.673108",
198                 "updated_at": "2025-11-29T22:02:41.673618"
199             },
200             "created_at": "2025-11-29T22:59:18.792633",
201             "updated_at": "2025-11-29T22:59:18.792633"
202         }
203     ],
204     "created_at": "2025-11-29T22:37:41.105029",
205     "updated_at": "2025-11-29T22:37:41.105029"
```

Se adjuntaron las 5 capturas correspondientes de cada invoices, con 1 cliente teniendo 2 productos asignados a cada una de sus facturas como corresponda.