

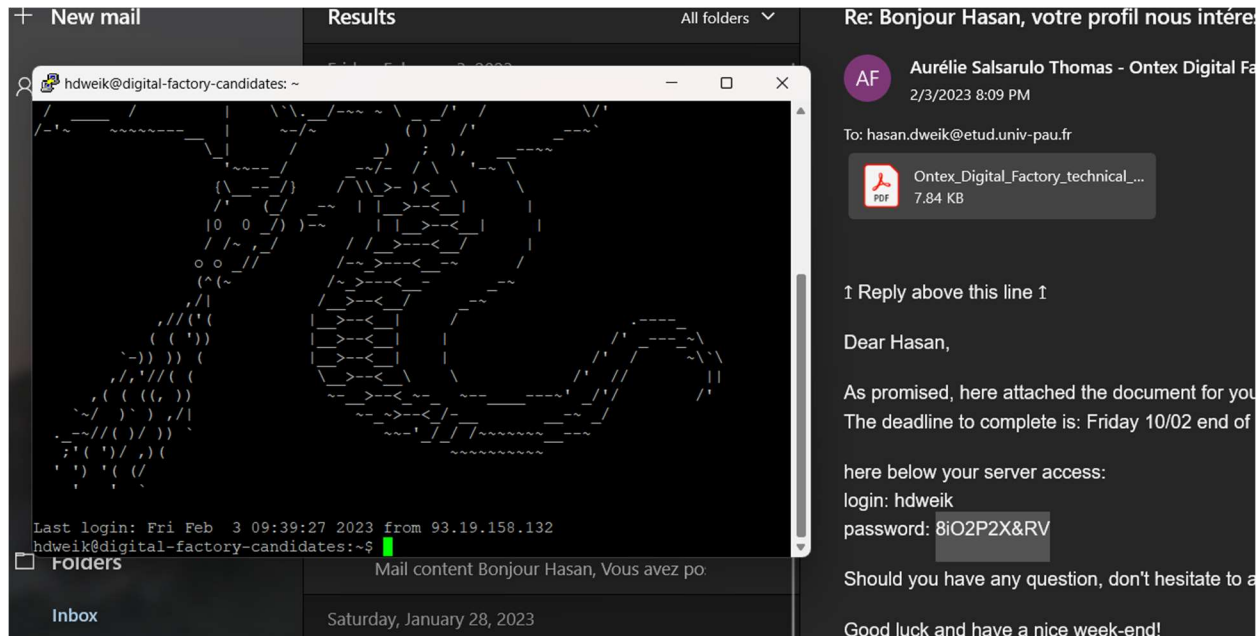
Homework Report

by Hasan Dweik

to Ontex Digital Factory

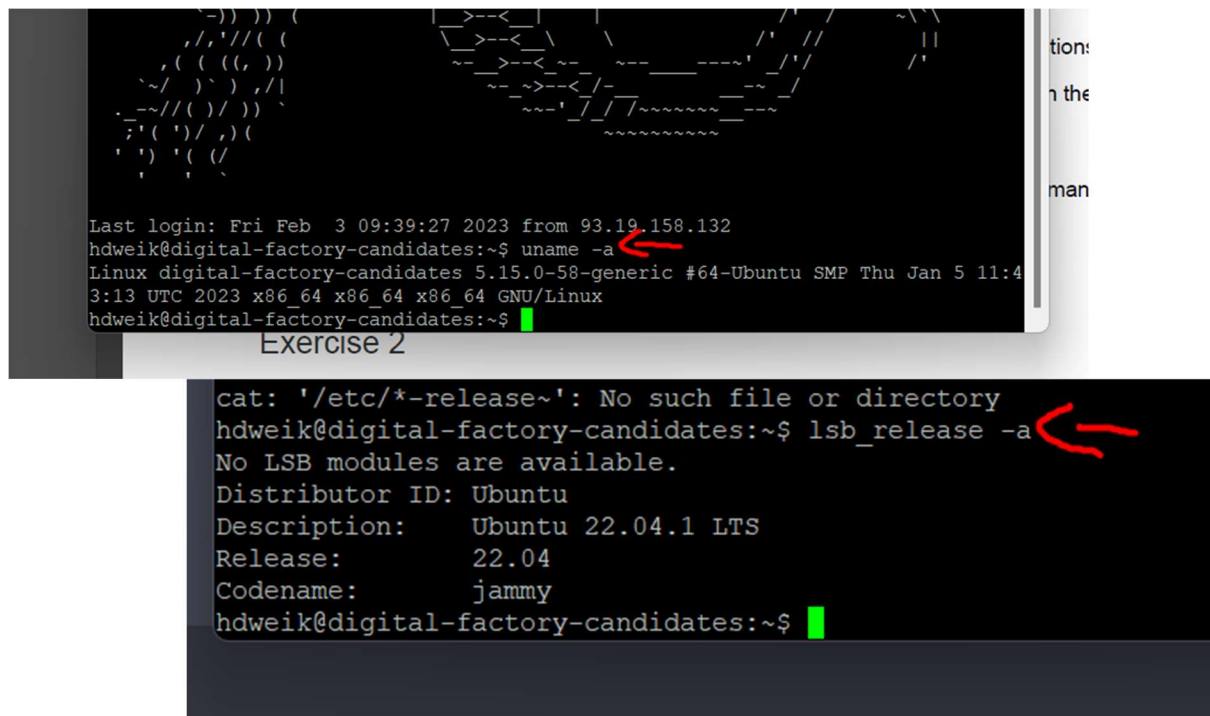
hasan_dweik@outlook.com

Ex:1:



Connected using putty to the remote server with the IP address 217.69.11.235 and credentials given by email.

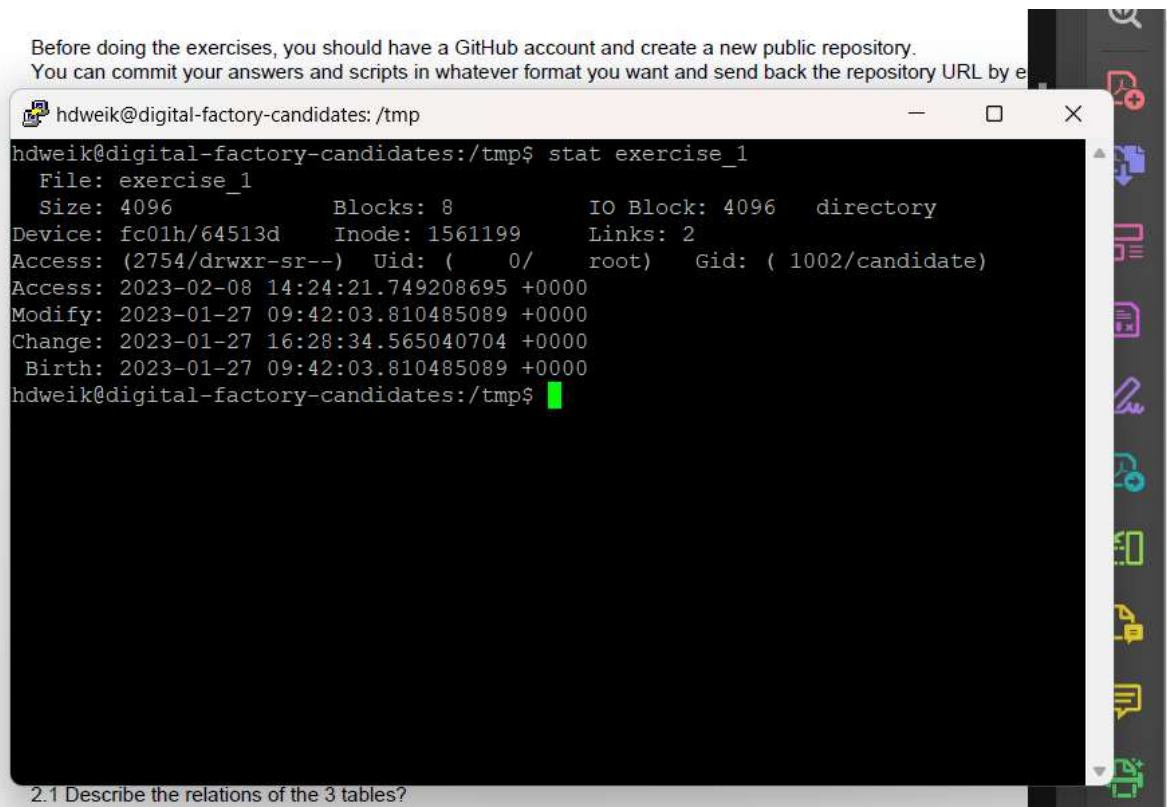
1.1



`uname -a`: This command provides information about the system, including the Linux kernel version and the hostname. The information returned by this command may also give you some hints about the Linux distribution installed on the system.

`lsb_release`: This command is available on most modern Linux distributions and provides information about the distribution release.

1.2



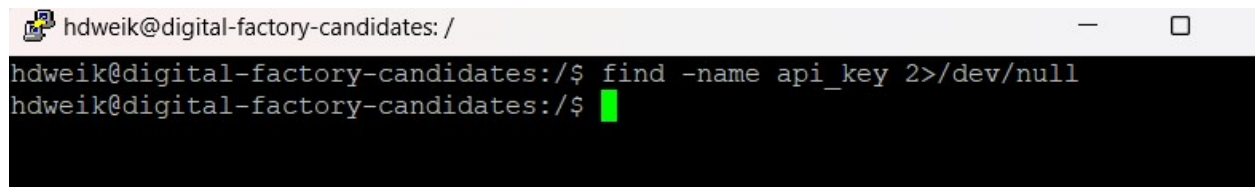
Before doing the exercises, you should have a GitHub account and create a new public repository. You can commit your answers and scripts in whatever format you want and send back the repository URL by email.

```
hdweik@digital-factory-candidates: /tmp$ stat exercise_1
File: exercise_1
Size: 4096          Blocks: 8          IO Block: 4096   directory
Device: fc01h/64513d Inode: 1561199    Links: 2
Access: (2754/drwxr-sr--)  Uid: (  0/   root)   Gid: (1002/candidate)
Access: 2023-02-08 14:24:21.749208695 +0000
Modify: 2023-01-27 09:42:03.810485089 +0000
Change: 2023-01-27 16:28:34.565040704 +0000
 Birth: 2023-01-27 09:42:03.810485089 +0000
hdweik@digital-factory-candidates: /tmp$
```

2.1 Describe the relations of the 3 tables?

- **drwxr-sr--**: This is the permission string for the folder.
- **d**: Indicates that this is a directory (folder)
- **rw**: The owner (root) has read, write, and execute permissions for this folder.
- **r-s**: Members of the group (candidate) have read and execute permissions, but not write permissions.
- **r--**: Other users have only read permissions, but not write or execute permissions.
- **Uid**: This is the user ID (UID) of the owner of the folder, which is 0 (root).
- **Gid**: This is the group ID (GID) of the group associated with the folder, which is 1002 (candidate).
- These permissions indicate that the owner of the folder (root) has full control over it, members of the group (candidate) can read and execute its contents, but not modify it, and other users can only read its contents but cannot make any changes.

1.3

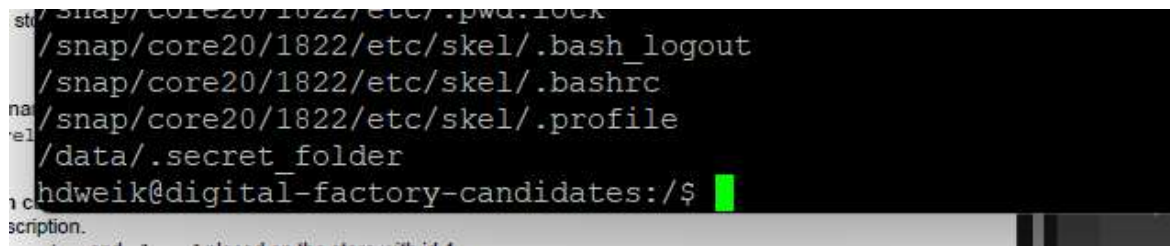
A terminal window titled 'hdweik@digital-factory-candidates: /'. The command 'find -name api_key 2>/dev/null' has been entered and executed. The prompt is now 'hdweik@digital-factory-candidates:/\$' with a green cursor.

```
hdweik@digital-factory-candidates: /
hdweik@digital-factory-candidates:/$ find -name api_key 2>/dev/null
hdweik@digital-factory-candidates:/$
```

This command will search for a file named "api_key" starting from the root directory (/) and it will redirect errors (2>/dev/null) to avoid showing any "permission denied" messages.

The trick is to show all hidden files.

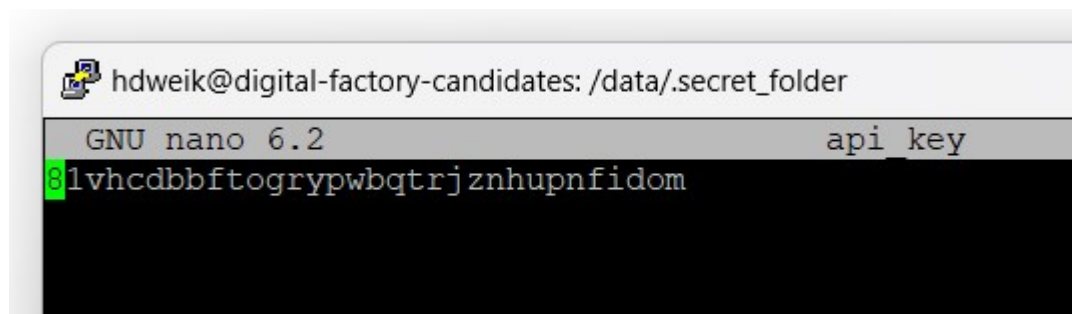
```
find / -name ".*" -o -name api_key 2>/dev/null
```

A terminal window showing the output of the 'find' command. The results are listed line by line: '/snap/core20/1822/etc/skel/.pwd.lock', '/snap/core20/1822/etc/skel/.bash_logout', '/snap/core20/1822/etc/skel/.bashrc', '/snap/core20/1822/etc/skel/.profile', and '/data/.secret_folder'. The prompt is now 'hdweik@digital-factory-candidates:/\$' with a green cursor.

```
/snap/core20/1822/etc/skel/.pwd.lock
/snap/core20/1822/etc/skel/.bash_logout
/snap/core20/1822/etc/skel/.bashrc
/snap/core20/1822/etc/skel/.profile
/data/.secret_folder
hdweik@digital-factory-candidates:/$
```

```
cd /data/.secret_folder
```

```
nano api_key
```

A terminal window showing the nano editor. The title bar says 'hdweik@digital-factory-candidates: /data/.secret_folder'. The editor header shows 'GNU nano 6.2' and 'api_key'. The first line of the file contains the API key '81vhcdbbftogrypwbqtrjznhupnfidom', with the first character '8' highlighted by a green cursor.

```
GNU nano 6.2                                api_key
81vhcdbbftogrypwbqtrjznhupnfidom
```

The API key is : 81vhcdbbftogrypwbqtrjznhupnfidom

Ex2

```
hdweik@digital-factory-candidates: /  
hdweik@digital-factory-candidates:/$ mysql  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 57  
Server version: 8.0.32-0ubuntu0.22.04.2 (Ubuntu)  
  
Copyright (c) 2000, 2023, Oracle and/or its affiliates.  
  
Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| ecommerce |  
| information_schema |  
| performance_schema |  
+-----+  
3 rows in set (0.03 sec)  
  
mysql>
```

```
mysql> use ecommerce;  
Reading table information for completion of table and column names  
You can turn off this feature to get a quicker startup with -A  
  
Database changed  
mysql> show tables  
-> ;  
+-----+  
| Tables_in_ecommerce |  
+-----+  
| customer_entity |  
| sales_order |  
| store |  
+-----+  
3 rows in set (0.01 sec)  
  
mysql>
```

```
| store | CREATE TABLE `store` (  
  `store_id` smallint unsigned NOT NULL AUTO_INCREMENT COMMENT 'Store ID',  
  `code` varchar(32) DEFAULT NULL COMMENT 'Code',  
  `website_id` smallint unsigned NOT NULL DEFAULT '0' COMMENT 'Website ID',  
  `group_id` smallint unsigned NOT NULL DEFAULT '0' COMMENT 'Group ID',  
  `name` varchar(255) NOT NULL COMMENT 'Store Name',  
  `sort_order` smallint unsigned NOT NULL DEFAULT '0' COMMENT 'Store Sort Order',  
  `is_active` smallint unsigned NOT NULL DEFAULT '0' COMMENT 'Store Activity',  
  PRIMARY KEY (`store_id`),  
  UNIQUE KEY `STORE_CODE` (`code`),  
  KEY `STORE_WEBSITE_ID` (`website_id`),  
  KEY `STORE_IS_ACTIVE_SORT_ORDER` (`is_active`,`sort_order`),  
  KEY `STORE_GROUP_ID` (`group_id`)  
) ENGINE=InnoDB AUTO_INCREMENT=10 DEFAULT CHARSET=utf8mb3 COMMENT='Stores' |
```



```

| customer_entity | CREATE TABLE `customer_entity` (
  `entity_id` int unsigned NOT NULL AUTO_INCREMENT COMMENT 'Entity ID',
  `website_id` smallint unsigned DEFAULT NULL COMMENT 'Website ID',
  `email` varchar(255) DEFAULT NULL COMMENT 'Email',
  `group_id` smallint unsigned NOT NULL DEFAULT '0' COMMENT 'Group ID',
  `store_id` smallint unsigned DEFAULT '0' COMMENT 'Store ID',
  `created_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP COMMENT 'Created At'
,
  `updated_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP COMMENT 'Updated At',
  `is_active` smallint unsigned NOT NULL DEFAULT '1' COMMENT 'Is Active',
  `created_in` varchar(255) DEFAULT NULL COMMENT 'Created From',
  `prefix` varchar(40) DEFAULT NULL COMMENT 'Name Prefix',
  `firstname` varchar(255) DEFAULT NULL COMMENT 'First Name',
  `middlename` varchar(255) DEFAULT NULL COMMENT 'Middle Name/Initial',
  `lastname` varchar(255) DEFAULT NULL COMMENT 'Last Name',
  `suffix` varchar(40) DEFAULT NULL COMMENT 'Name Suffix',
  `dob` date DEFAULT NULL COMMENT 'Date of Birth',
  `password_hash` varchar(128) DEFAULT NULL COMMENT 'Password hash',
  `default_billing` int unsigned DEFAULT NULL COMMENT 'Default Billing Address',
  `default_shipping` int unsigned DEFAULT NULL COMMENT 'Default Shipping Address'
,
  PRIMARY KEY (`entity_id`),
  UNIQUE KEY `CUSTOMER_ENTITY_EMAIL_WEBSITE_ID` (`email`,`website_id`),
  KEY `CUSTOMER_ENTITY_STORE_ID` (`store_id`),
  KEY `CUSTOMER_ENTITY_WEBSITE_ID` (`website_id`),
  KEY `CUSTOMER_ENTITY_FIRSTNAME` (`firstname`),
  KEY `CUSTOMER_ENTITY_LASTNAME` (`lastname`),
  CONSTRAINT `CUSTOMER_ENTITY_STORE_ID_STORE_STORE_ID` FOREIGN KEY (`store_id`)
REFERENCES `store` (`store_id`) ON DELETE SET NULL
) ENGINE=InnoDB AUTO_INCREMENT=1110746 DEFAULT CHARSET=utf8mb3 COMMENT='Customer Entity' |

```

```

sales_order | CREATE TABLE `sales_order` (
  `entity_id` int unsigned NOT NULL AUTO_INCREMENT COMMENT 'Entity ID',
  `state` varchar(32) DEFAULT NULL COMMENT 'State',
  `status` varchar(32) DEFAULT NULL COMMENT 'Status',
  `coupon_code` varchar(255) DEFAULT NULL COMMENT 'Coupon Code',
  `store_id` smallint unsigned DEFAULT NULL COMMENT 'Store ID',
  `customer_id` int unsigned DEFAULT NULL COMMENT 'Customer ID',
  `discount_amount` decimal(20,4) DEFAULT NULL COMMENT 'Discount Amount',
  `grand_total` decimal(20,4) DEFAULT NULL COMMENT 'Grand Total',
  `tax_amount` decimal(20,4) DEFAULT NULL COMMENT 'Tax Amount',
  `billing_address_id` int DEFAULT NULL COMMENT 'Billing Address ID',
  `shipping_address_id` int DEFAULT NULL COMMENT 'Shipping Address ID',
  `increment_id` varchar(32) DEFAULT NULL COMMENT 'Increment ID',
  `shipping_method` varchar(120) DEFAULT NULL,
  `created_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP COMMENT 'Created At',
  `updated_at` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP COMMENT 'Updated At',
  PRIMARY KEY (`entity_id`),
  UNIQUE KEY `SALES_ORDER_INCREMENT_ID_STORE_ID` (`increment_id`,`store_id`),
  KEY `SALES_ORDER_STATUS` (`status`),
  KEY `SALES_ORDER_STATE` (`state`),
  KEY `SALES_ORDER_STORE_ID` (`store_id`),
  KEY `SALES_ORDER_CREATED_AT` (`created_at`),
  KEY `SALES_ORDER_CUSTOMER_ID` (`customer_id`),
  KEY `SALES_ORDER_UPDATED_AT` (`updated_at`),
  CONSTRAINT `SALES_ORDER_CUSTOMER_ID_CUSTOMER_ENTITY_ENTITY_ID` FOREIGN KEY (`customer_id`
) REFERENCES `customer_entity` (`entity_id`) ON DELETE SET NULL,
  CONSTRAINT `SALES_ORDER_STORE_ID_STORE_STORE_ID` FOREIGN KEY (`store_id`) REFERENCES `sto
re` (`store_id`) ON DELETE SET NULL
) ENGINE=InnoDB AUTO_INCREMENT=389062 DEFAULT CHARSET=utf8mb3 COMMENT='Sales Flat Order' |
+-----+

```

2.1

- A customer entity can be associated with a store using the store_id
- Each sales order is associated with a customer and a store using the customer

2.2

```
SELECT customer_entity.email, sales_order.grand_total, sales_order.created_at
FROM sales_order
INNER JOIN customer_entity ON sales_order.customer_id = customer_entity.entity_id
INNER JOIN store ON sales_order.store_id = store.store_id
WHERE store.name = 'LBC FR-FR' AND sales_order.status = 'processing' AND
customer_entity.created_at >= '2022-12-01' AND customer_entity.created_at < '2023-01-01'
AND customer_entity.email LIKE 'odevelop%'
```

```
mysql> SELECT customer_entity.email, sales_order.grand_total, sales_order.created_at
-> FROM sales_order
-> INNER JOIN customer_entity ON sales_order.customer_id = customer_entity.entity_id
-> INNER JOIN store ON sales_order.store_id = store.store_id
-> WHERE store.name = 'LBC FR-FR' AND sales_order.status = 'processing' AND customer_entity.
created_at >= '2022-12-01' AND customer_entity.created_at < '2023-01-01'
-> AND customer_entity.email LIKE 'odevelop%'
-> ;
```

email	grand_total	created_at
odevelopment+2077225@gmail.com	99.6000	2022-12-01 05:28:26
odevelopment+5666898@gmail.com	54.0000	2022-12-01 05:32:12
odevelopment+4395508@gmail.com	54.0000	2022-12-01 05:34:11
odevelopment+6100308@gmail.com	54.0000	2022-12-01 06:09:13
odevelopment+8354335@gmail.com	99.6000	2022-12-02 05:19:10
odevelopment+8069083@gmail.com	54.0000	2022-12-02 05:23:11
odevelopment+4795988@gmail.com	54.0000	2022-12-02 05:26:19
odevelopment+513194@gmail.com	54.0000	2022-12-02 06:03:13
odevelopment+312506@gmail.com	99.6000	2022-12-05 05:17:14
odevelopment+9833520@gmail.com	54.0000	2022-12-05 05:21:10
odevelopment+7854345@gmail.com	54.0000	2022-12-05 05:23:28
odevelopment+3173295@gmail.com	54.0000	2022-12-05 06:00:12
odevelopment+6614899@gmail.com	99.6000	2022-12-06 05:18:11
odevelopment+9678938@gmail.com	54.0000	2022-12-06 05:22:14
odevelopment+6495988@gmail.com	54.0000	2022-12-06 05:24:13

2.3

```
2022-11-03 06:37:06 | 1108297 | odevelopment+7262306@gmail.com | 2023-01 | 1 | 105.4000 |
2022-11-03 06:43:48 | 1108301 | odevelopment+1367796@gmail.com | 2023-01 | 1 | 54.0000 |
2022-10-06 06:08:48 | 1106413 | odevelopment+1578289@gmail.com | 2023-01 | 1 | 54.0000 |
2022-08-11 09:05:10 | 1103562 | odevelopment+3750650@gmail.com | 2023-01 | 1 | 105.4000 |
2022-10-06 06:40:11 | 1106428 | odevelopment+5859368@gmail.com | 2023-01 | 1 | 105.4000 |
+-----+-----+-----+-----+-----+
8312 rows in set (0.09 sec)
```

```
mysql> -- Write a script to retrieve information on a specific customer with its sales orders. If the id does not exist, return an error message.
```

```
SELECT customer_entity.created_at AS customer_created_at, customer_entity.entity_id,
customer_entity.email,

DATE_FORMAT(sales_order.created_at, '%Y-%m') AS order_month,

COUNT(sales_order.entity_id) AS order_count,

SUM(sales_order.grand_total) AS order_total

FROM customer_entity

INNER JOIN sales_order ON customer_entity.entity_id = sales_order.customer_id

INNER JOIN store ON sales_order.store_id = store.store_id

WHERE store.store_id = 4 AND sales_order.status IN ('complete', 'processing', 'closed')

GROUP BY customer_created_at, customer_entity.entity_id, customer_entity.email,
order_month
```