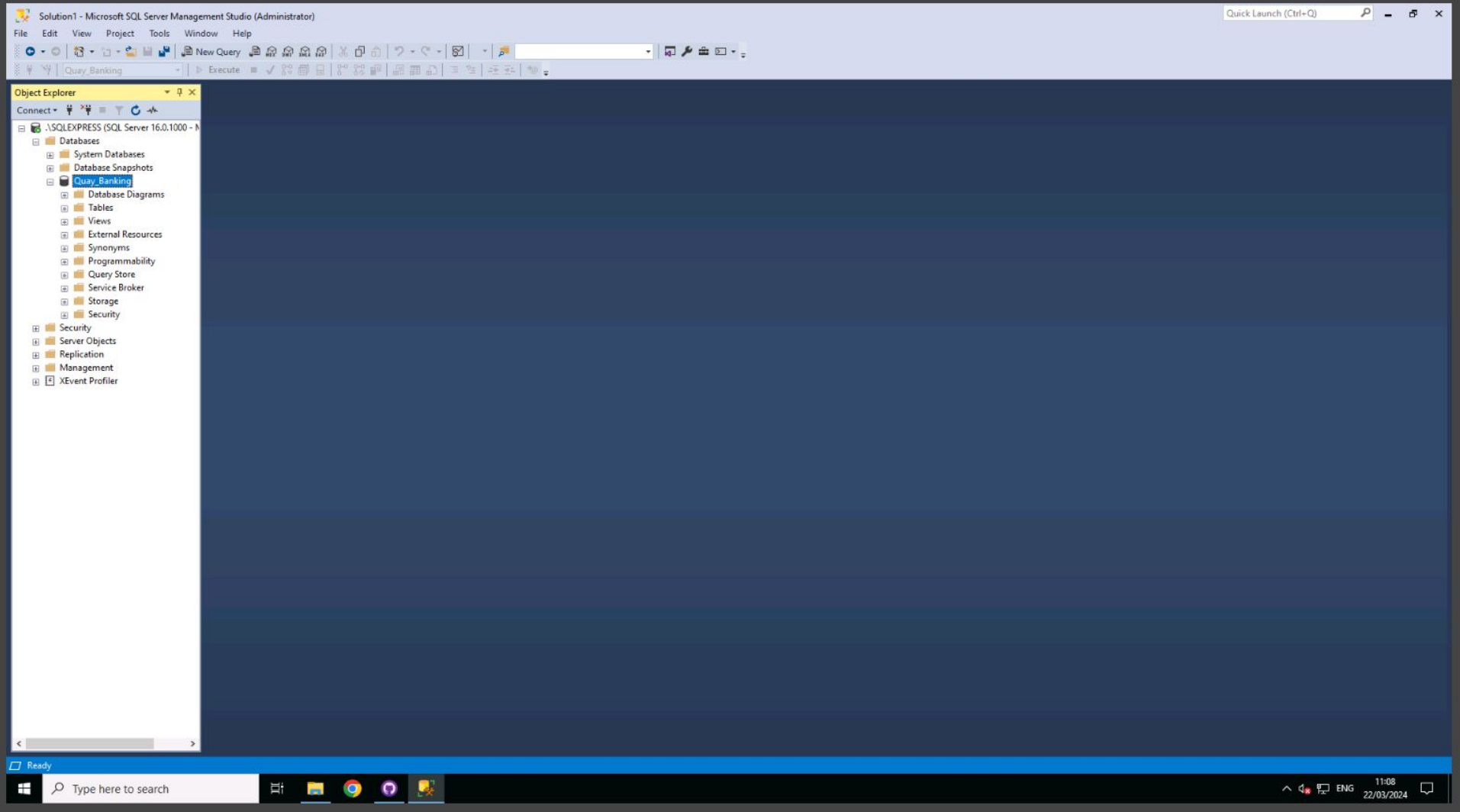
Solution1 - Microsoft SQL Server Management Studio (Administrator)
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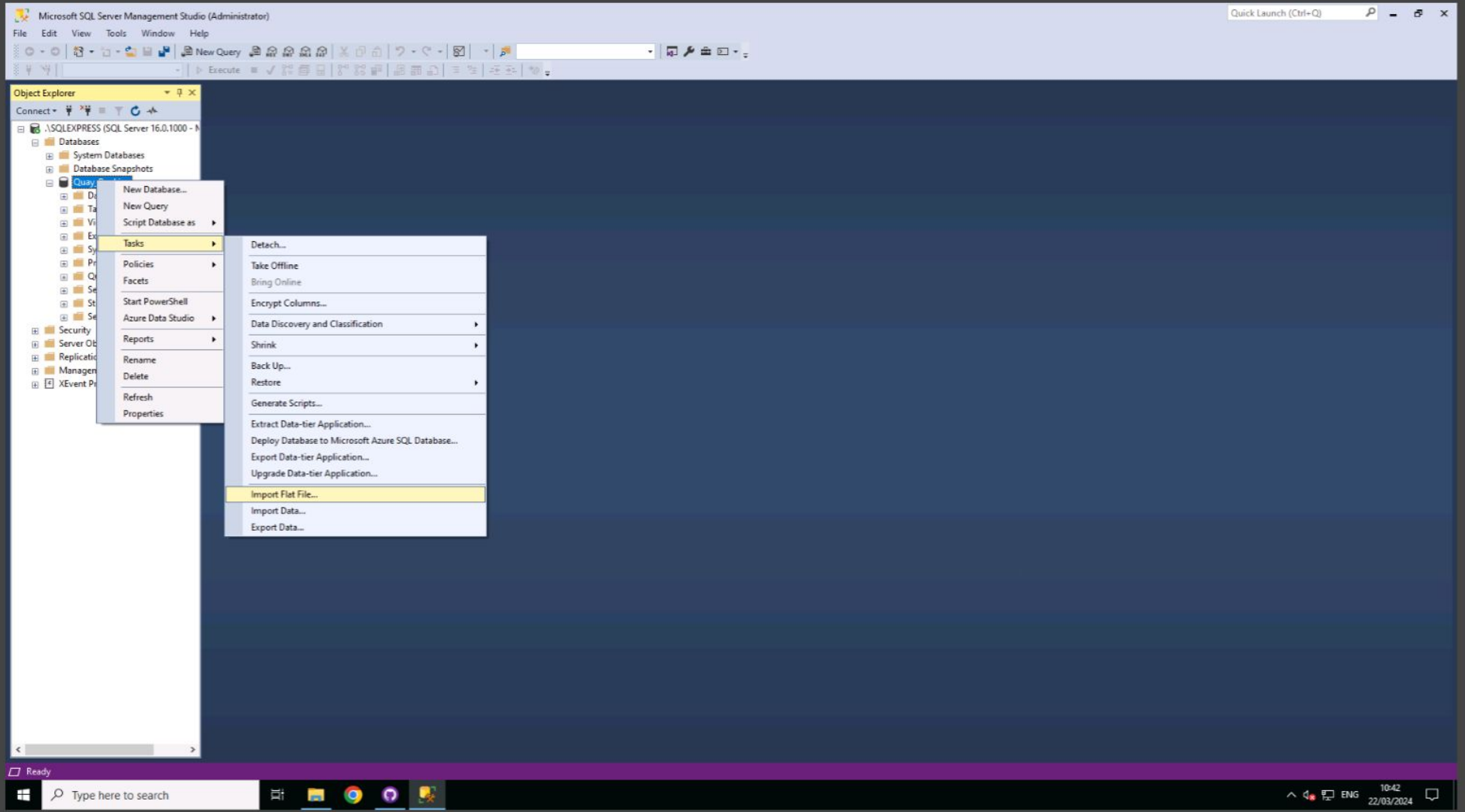
Type here to search
ENG
11:08
22/03/2024


Microsoft SQL Server Management Studio (Administrator)
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Detach...
Take Offline
Bring Online
Encrypt Columns...
Data Discovery and Classification
Shrink
Back Up...
Restore
Generate Scripts...
Extract Data-tier Application...
Deploy Database to Microsoft Azure SQL Database...
Export Data-tier Application...
Upgrade Data-tier Application...
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Import Flat File 'Quay_Banking'

Introduction

Introduction

Specify Input File

Preview Data

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Help

Import Flat File

This wizard will help you import the contents of a file into a new table in your database.

To import data, you must:

- Specify the input file containing the data.
- Preview the automatically generated table schema and optionally modify columns.

SQL

To begin importing your data, click Next.

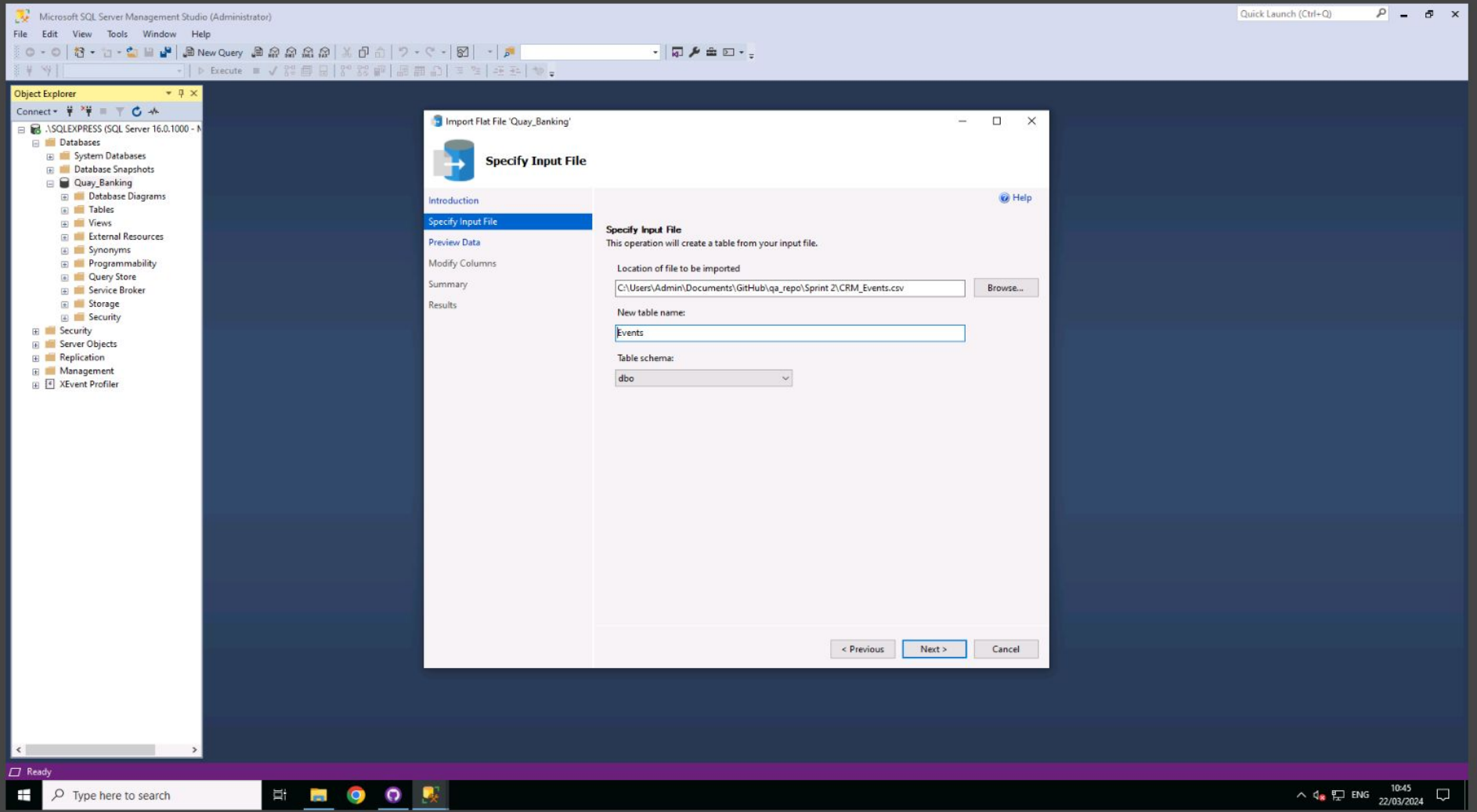
Do not show this page again.

< Previous Next > Cancel

Ready

Type here to search

ENG 10:44 22/03/2024


Microsoft SQL Server Management Studio (Administrator)
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Specify Input File
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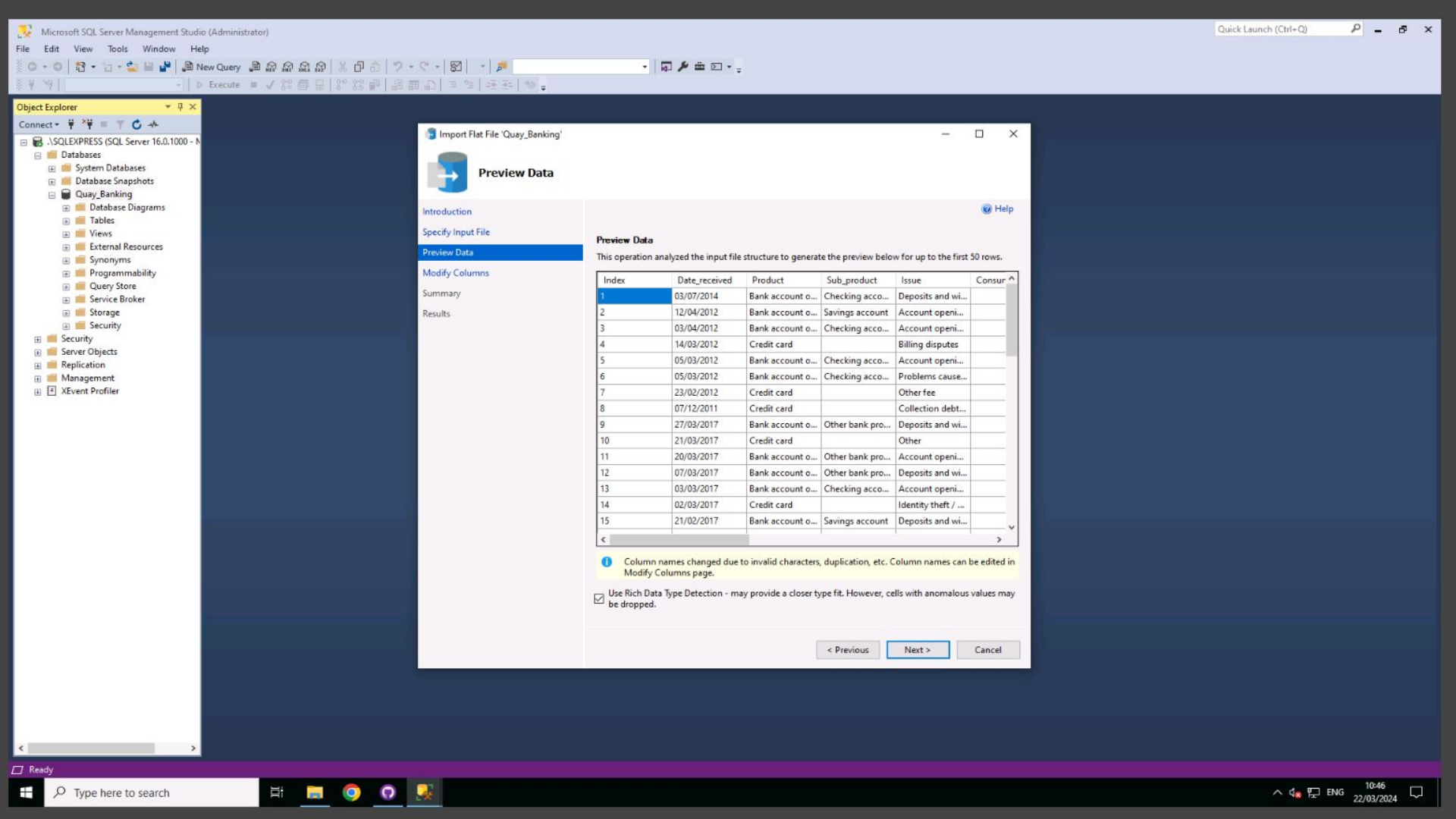
Help
Specify Input File
This operation will create a table from your input file.
Location of file to be imported
C:\Users\Admin\Documents\GitHub\qa_repo\Sprint 2\CRM_Events.csv
Browse...
New table name:
Events
Table schema:
dbo
< Previous
Next >
Cancel
Ready
Type here to search
ENG
10:45
22/03/2024


Microsoft SQL Server Management Studio (Administrator)
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Preview Data
This operation analyzed the input file structure to generate the preview below for up to the first 50 rows.
Index Date_received Product Sub_product Issue Consur
1 03/07/2014 Bank account o... Checking acco... Deposits and wi...
2 12/04/2012 Bank account o... Savings account Account openi...
3 03/04/2012 Bank account o... Checking acco... Account openi...
4 14/03/2012 Credit card Billing disputes
5 05/03/2012 Bank account o... Checking acco... Account openi...
6 05/03/2012 Bank account o... Checking acco... Problems cause...
7 23/02/2012 Credit card Other fee
8 07/12/2011 Credit card Collection debt...
9 27/03/2017 Bank account o... Other bank pro... Deposits and wi...
10 21/03/2017 Credit card Other
11 20/03/2017 Bank account o... Other bank pro... Account openi...
12 07/03/2017 Bank account o... Other bank pro... Deposits and wi...
13 03/03/2017 Bank account o... Checking acco... Account openi...
14 02/03/2017 Credit card Identity theft / ...
15 21/02/2017 Bank account o... Savings account Deposits and wi...
Column names changed due to invalid characters, duplication, etc. Column names can be edited in Modify Columns page.
Use Rich Data Type Detection - may provide a closer type fit. However, cells with anomalous values may be dropped.
< Previous
Next >
Cancel
Ready
Type here to search
ENG
10:46
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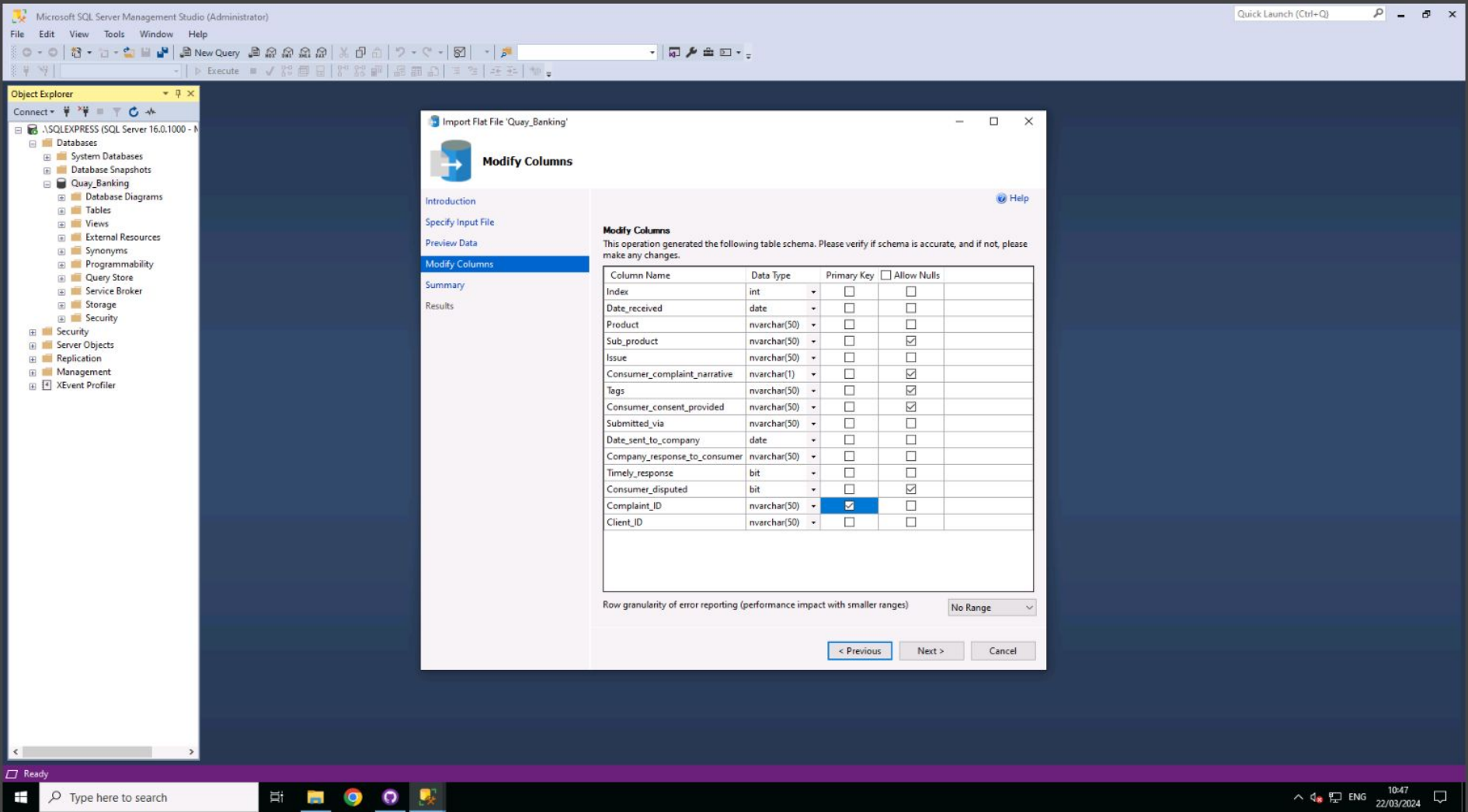
Microsoft SQL Server Management Studio (Administrator)
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Help
Modify Columns
This operation generated the following table schema. Please verify if schema is accurate, and if not, please make any changes.
Column Name
Data Type
Primary Key
Allow Nulls
Index int
Date_received date
Product nvarchar(50)
Sub_product nvarchar(50)
Issue nvarchar(50)
Consumer_complaint_narrative nvarchar(1)
Tags nvarchar(50)
Consumer_consent_provided nvarchar(50)
Submitted_via nvarchar(50)
Date_sent_to_company date
Company_response_to_consumer nvarchar(50)
Timely_response bit
Consumer_disputed bit
Complaint_ID nvarchar(50)
Client_ID nvarchar(50)
Row granularity of error reporting (performance impact with smaller ranges)
No Range
< Previous
Next >
Cancel
Ready
Type here to search
ENG
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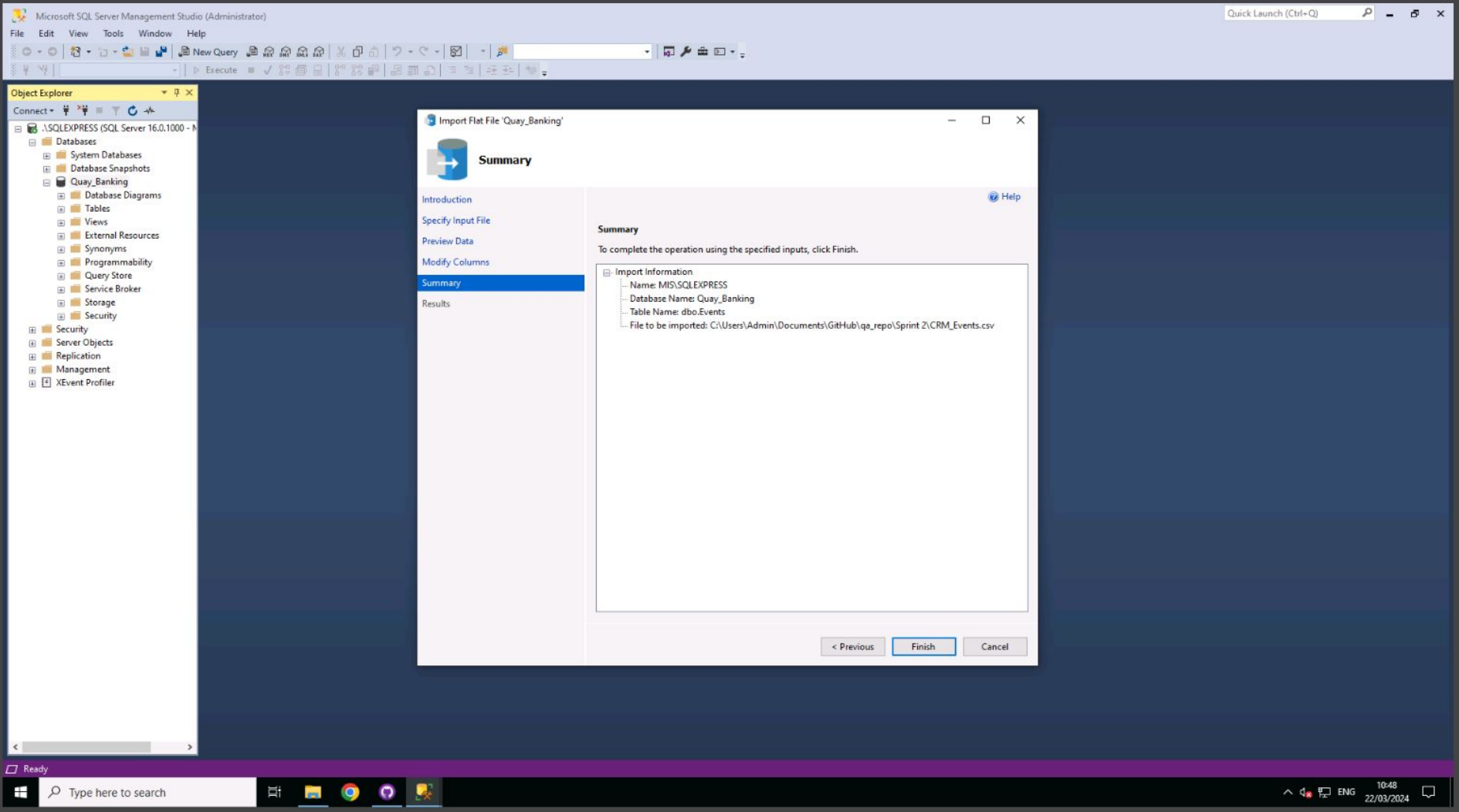
Microsoft SQL Server Management Studio (Administrator)
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Help
Summary
To complete the operation using the specified inputs, click Finish.
Import Information
Name: MIS\SQLEXPRESS
Database Name: Quay_Banking
Table Name: dbo.Events
File to be imported: C:\Users\Admin\Documents\GitHub\qa_repo\Sprint 2\CRM_Events.csv
< Previous
Finish
Cancel
Ready
Type here to search
ENG
10:48
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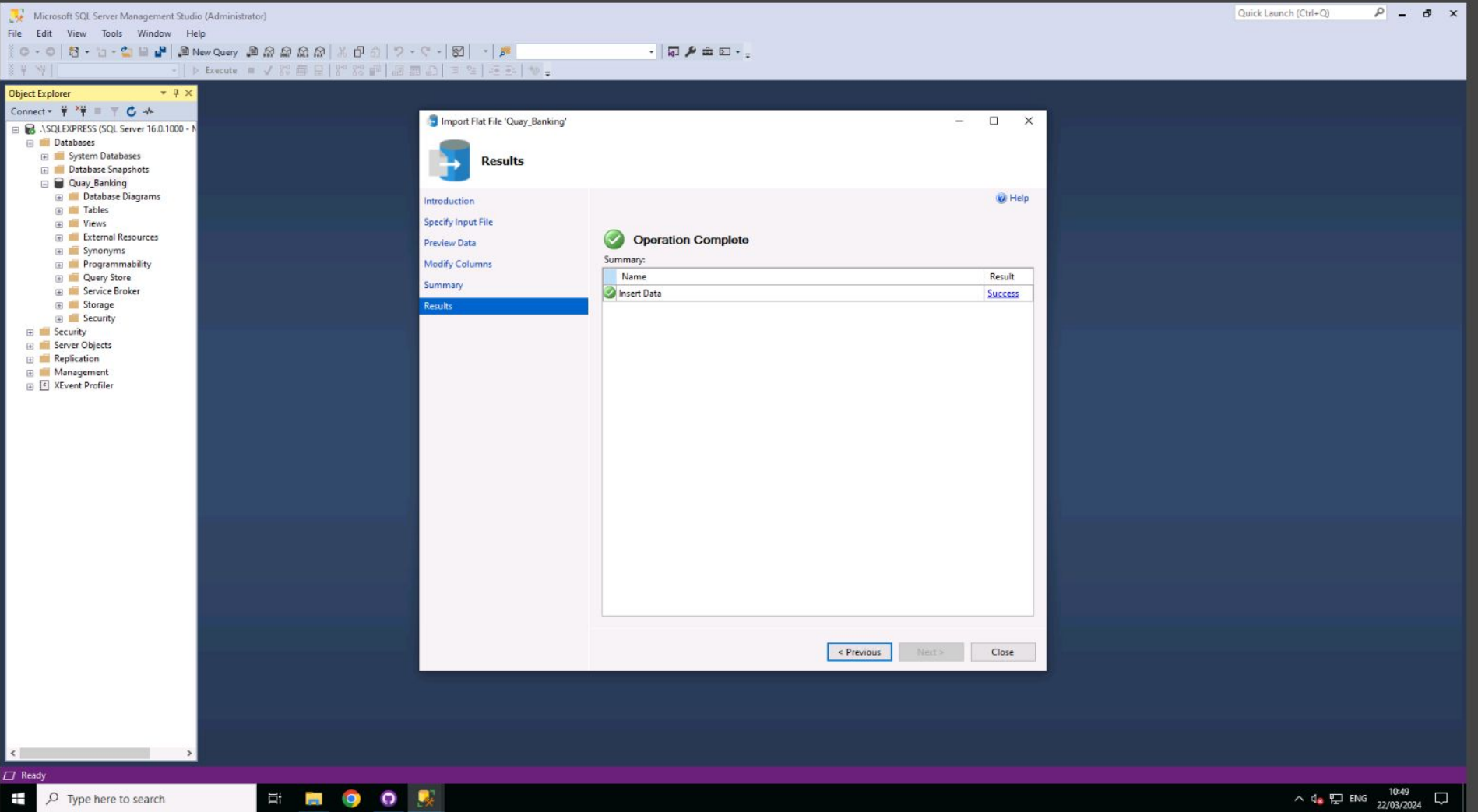
Microsoft SQL Server Management Studio (Administrator)
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Quick Launch (Ctrl+Q)
Object Explorer
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Import Flat File 'Quay_Banking'
Results
Introduction
Specify Input File
Preview Data
Modify Columns
Summary
Results
Help
Operation Complete
Summary:
Name
Result
Insert Data
Success
< Previous
Next >
Close
Ready
Type here to search
ENG
10:49
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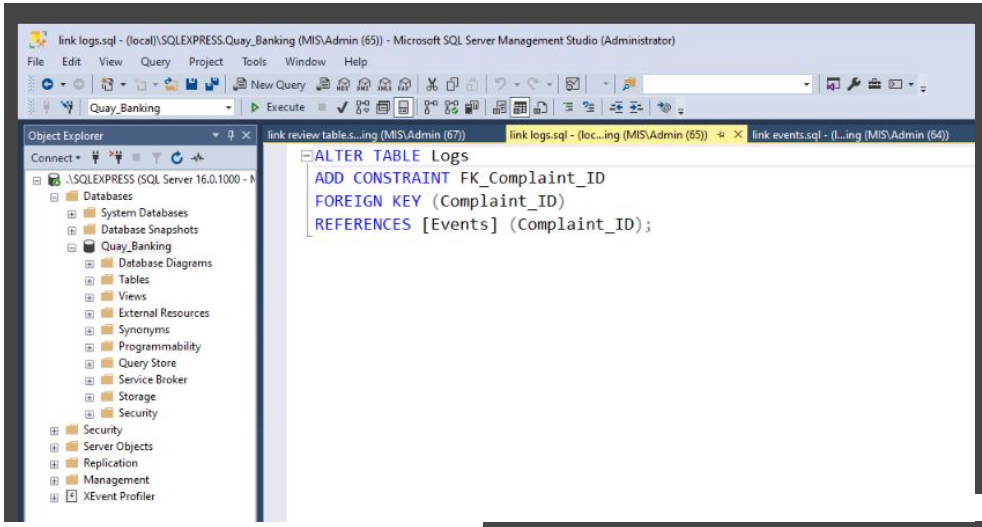
link logs.sql - (local)\SQLEXPRESS.Quay_Banking (MIS\Admin (65)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
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Quay_Banking
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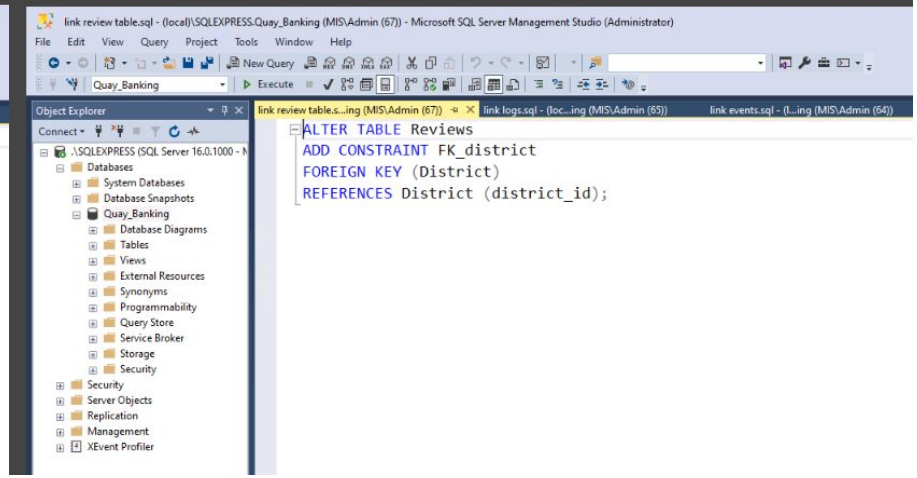
XEvent Profiler
link review table.s...ing (MIS\Admin (67))
link logs.sql - (loc...ing (MIS\Admin (65))
link events.sql - (l...ing (MIS\Admin (64))
ALTER TABLE Logs
ADD CONSTRAINT FK_Complaint_ID
FOREIGN KEY (Complaint_ID)
REFERENCES [Events] (Complaint_ID);


link review table.sql - (local)\SQLEXPRESS.Quay_Banking (MIS\Admin (67)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
New Query
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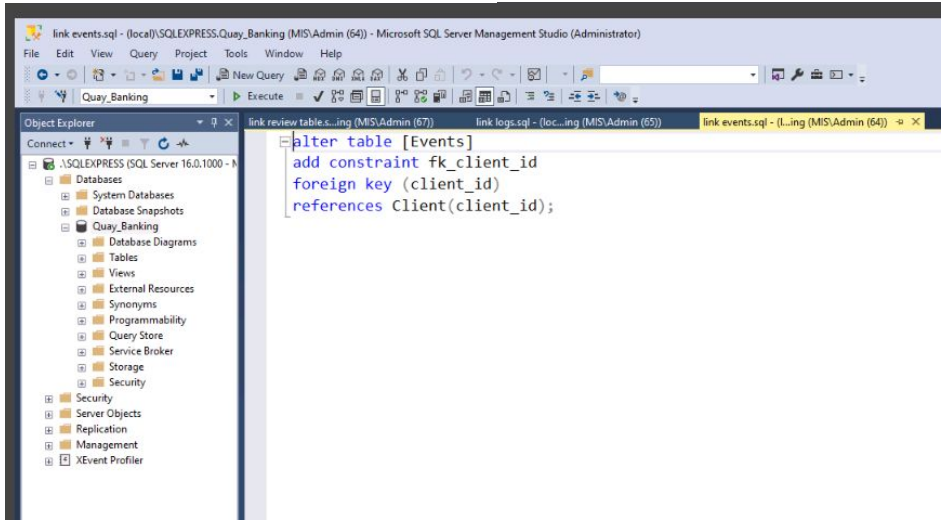
XEvent Profiler
link review table.s...ing (MIS\Admin (67))
link logs.sql - (loc...ing (MIS\Admin (65))
link events.sql - (l...ing (MIS\Admin (64))
ALTER TABLE Reviews
ADD CONSTRAINT FK_district
FOREIGN KEY (District)
REFERENCES District (district_id);


link events.sql - (local)\SQLEXPRESS.Quay_Banking (MIS\Admin (64)) - Microsoft SQL Server Management Studio (Administrator)
File Edit View Query Project Tools Window Help
New Query
Quay_Banking
Execute
Object Explorer
Connect
.\SQLEXPRESS (SQL Server 16.0.1000 - N
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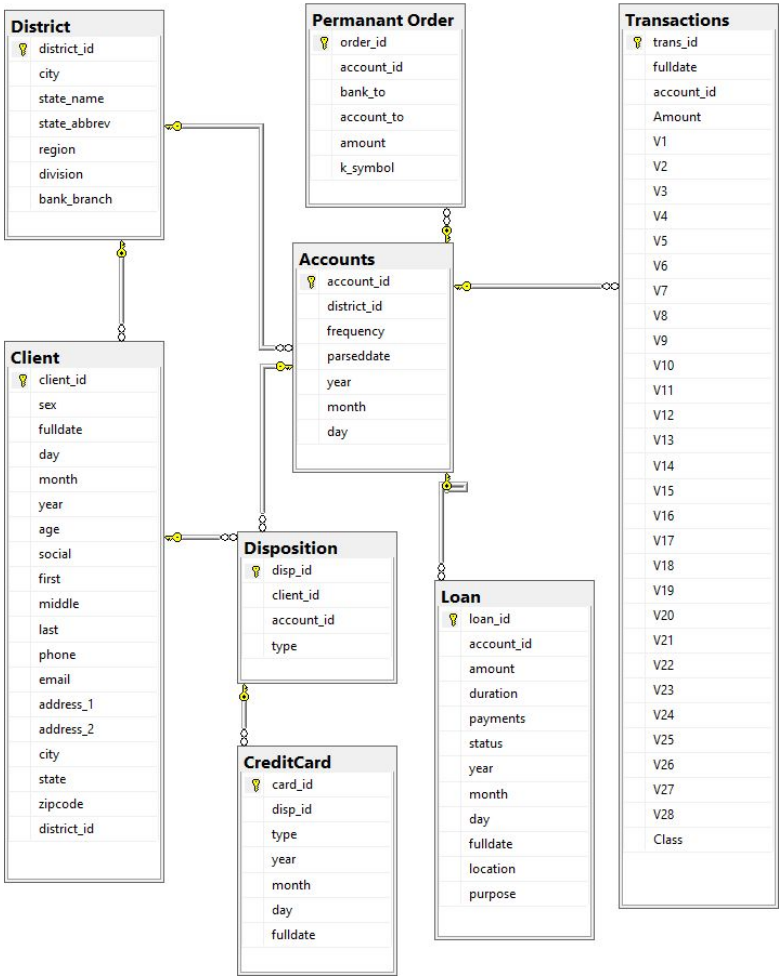
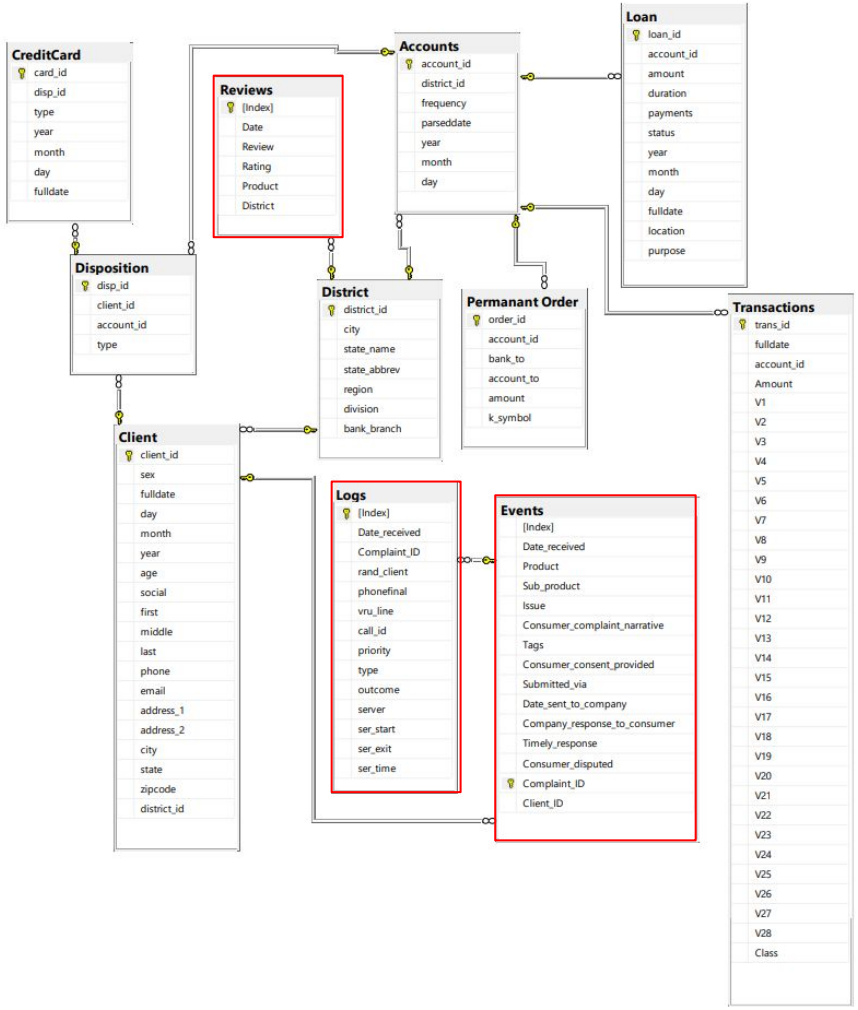
link review table.s...ing (MIS\Admin (67))
link logs.sql - (loc...ing (MIS\Admin (65))
link events.sql - (l...ing (MIS\Admin (64))
alter table [Events]
add constraint fk_client_id
foreign key (client_id)
references Client(client_id);


District
district_id
city
state_name
state_abbrev
region
division
bank_branch
Permanant Order
order_id
account_id
bank_to
account_to
amount
k_symbol
Transactions
trans_id
fulldate
account_id
Amount
V1
V2
V3
V4
V5
V6
V7
V8
V9
V10
V11
V12
V13
V14
V15
V16
V17
V18
V19
V20
V21
V22
V23
V24
V25
V26
V27
V28
Class
Accounts
account_id
district_id
frequency
parseddate
year
month
day
Client
client_id
sex
fulldate
day
month
year
age
social
first
middle
last
phone
email
address_1
address_2
city
state
zipcode
district_id
Disposition
disp_id
client_id
account_id
type
Loan
loan_id
account_id
amount
duration
payments
status
year
month
day
fulldate
location
purpose
CreditCard
card_id
disp_id
type
year
month
day
fulldate


CreditCard
card_id
disp_id
type
year
month
day
fulldate
Reviews
[Index]
Date
Review
Rating
Product
District
Accounts
account_id
district_id
frequency
parseddate
year
month
day
Loan
loan_id
account_id
amount
duration
payments
status
year
month
day
fulldate
location
purpose
Disposition
disp_id
client_id
account_id
type
District
district_id
city
state_name
state_abbrev
region
division
bank_branch
Permanant Order
order_id
account_id
bank_to
account_to
amount
k_symbol
Transactions
trans_id
fulldate
account_id
Amount
V1
V2
V3
V4
V5
V6
V7
V8
V9
V10
V11
V12
V13
V14
V15
V16
V17
V18
V19
V20
V21
V22
V23
V24
V25
V26
V27
V28
Class
Client
client_id
sex
fulldate
day
month
year
age
social
first
middle
last
phone
email
address_1
address_2
city
state
zipcode
district_id
Logs
[Index]
Date_received
Complaint_ID
rand_client
phonefinal
vru_line
call_id
priority
type
outcome
server
ser_start
ser_exit
ser_time
Events
[Index]
Date_received
Product
Sub_product
Issue
Consumer_complaint_narrative
Tags
Consumer_consent_provided
Submitted_via
Date_sent_to_company
Company_response_to_consumer
Timely_response
Consumer_disputed
Complaint_ID
Client_ID

## Which 20% of branches are underperforming? – evident in “closed complaints without relief” and negative customer service feedback

```
select top 20 percent
    D.bank_branch,
    (count(distinct(E.[Index]))) + (count(distinct(R.[Index]))) as Number_of_complaints
from
    Events as E
join
    Client as C
on
    E.Client_ID = C.client_id
join
    District as D
on
    C.district_id = D.district_id
join
    Reviews as R
on
    D.district_id = R.District
where
    E.Company_response_to_consumer = 'Closed without relief' and
    R.Rating = 1
group by
    D.bank_branch
order by
    Number_of_complaints desc
```

| | bank_branch | Number_of_complaints |
|---|---|---|
| 1 | Quincy Quay | 213 |
| 2 | Quay Portland of Maine | 199 |
| 3 | New Britain Quay | 199 |
| 4 | Atlanta State Quay | 196 |
| 5 | Quay Warwick | 194 |
| 6 | Quay Manhattan | 193 |
| 7 | Milwaukee Central Quay | 183 |
| 8 | Lawrence Quay branch | 179 |
| 9 | Newton Quay | 140 |
| 10 | Quay Chicago | 136 |
| 11 | Quay Anchorage | 133 |
| 12 | Quay Nachsville Main | 131 |
| 13 | Quay Las Vegas | 130 |
| 14 | Quay Sioux Falls | 127 |
| 15 | Quay Yonkers | 127 |
| 16 | Quay Manchester | 126 |

## Can we rank the Call Centre Servers’ performance according to Call duration and outcome?

```
select
    L.server,
    replace(convert(varchar, CONVERT(time, dateadd(second, min(datediff(second,'00:00:00', L.ser_time)), '00:00:00')), 108), ':00:', ':') as Min_call_length,
    replace(convert(varchar, CONVERT(time, dateadd(second, avg(datediff(second,'00:00:00', L.ser_time)), '00:00:00')), 108), ':00:', ':') as Average_call_length,
    replace(convert(varchar, CONVERT(time, dateadd(second, max(datediff(second,'00:00:00', L.ser_time)), '00:00:00')), 108), ':00:', ':') as Max_call_length,
    sum(case when E.Company_response_to_consumer = 'Closed without relief' then 1 else 0 end) as Closed_without_relief,
    sum(case when E.Company_response_to_consumer = 'Untimely response' then 1 else 0 end) as Untimely_response,
    sum(case when E.Company_response_to_consumer = 'Closed with explanation' then 1 else 0 end) as Closed_with_explanation,
    sum(case when E.Company_response_to_consumer = 'Closed with relief' then 1 else 0 end) as Closed_with_relief,
    sum(case when E.Company_response_to_consumer = 'Closed with non-monetary relief' then 1 else 0 end) as Closed_with_non_monetary_relief,
    sum(case when E.Company_response_to_consumer = 'Closed with monetary relief' then 1 else 0 end) as Closed_with_monetary_relief,
    sum(case when E.Company_response_to_consumer = 'Closed' then 1 else 0 end) as Closed,
    sum(case when E.Company_response_to_consumer = 'In progress' then 1 else 0 end) as In_progress
from
    Logs as L
join
    Events as E
on
    L.Complaint_ID = E.Complaint_ID
group by
    server
order by
    Average_call_length desc
```

| | server | Min_call_length | Average_call_length | Max_call_length | Closed_without_relief | Untimely_response | Closed_with_explanation | Closed_with_relief | Closed_with_non_monetary_relief | Closed_with_monetary_relief | Closed | In_progress |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | BENSION | 00:31 | 00:12:45 | 00:28:05 | 4 | 0 | 69 | 4 | 8 | 14 | 1 | 0 |
| 2 | GILI | 00:34 | 00:12:43 | 00:28:59 | 1 | 1 | 53 | 1 | 7 | 11 | 1 | 0 |
| 3 | MIKI | 00:05 | 00:12:39 | 00:28:17 | 3 | 0 | 88 | 5 | 7 | 21 | 2 | 2 |
| 4 | KAZAV | 00:10 | 00:12:25 | 00:28:53 | 10 | 0 | 109 | 8 | 13 | 37 | 4 | 0 |
| 5 | MORIAH | 00:20 | 00:12:17 | 00:27:55 | 3 | 0 | 80 | 3 | 8 | 23 | 2 | 1 |
| 6 | ANAT | 00:12 | 00:12:09 | 00:27:52 | 5 | 0 | 65 | 4 | 6 | 17 | 2 | 1 |
| 7 | TOVA | 00:09 | 00:12:07 | 00:28:39 | 7 | 0 | 116 | 6 | 11 | 36 | 2 | 1 |
| 8 | BASCH | 00:00 | 00:11:58 | 00:25:44 | 3 | 0 | 70 | 3 | 3 | 23 | 3 | 0 |
| 9 | AVIDAN | 00:25 | 00:11:56 | 00:28:03 | 3 | 0 | 66 | 1 | 11 | 18 | 1 | 0 |
| 10 | GELBER | 00:03:28 | 00:11:53 | 00:16:58 | 0 | 0 | 4 | 0 | 1 | 2 | 0 | 0 |
| 11 | MICHAL | 00:16 | 00:11:46 | 00:26:51 | 3 | 0 | 79 | 5 | 6 | 20 | 1 | 1 |
| 12 | NO_SERVER | 00:22 | 00:11:44 | 00:27:42 | 1 | 0 | 29 | 3 | 7 | 9 | 1 | 0 |
| 13 | DORIT | 00:01 | 00:11:44 | 00:28:01 | 1 | 0 | 66 | 4 | 11 | 20 | 0 | 1 |
| 14 | SHARON | 00:13 | 00:11:37 | 00:28:22 | 6 | 0 | 111 | 6 | 10 | 24 | 1 | 0 |
| 15 | SHLOMO | 00:24 | 00:11:37 | 00:27:26 | 1 | 0 | 36 | 4 | 3 | 11 | 0 | 0 |
| 16 | YIFAT | 00:08 | 00:11:36 | 00:28:50 | 1 | 0 | 97 | 5 | 19 | 26 | 3 | 3 |
| 17 | ELI | 00:19 | 00:11:10 | 00:26:02 | 2 | 0 | 30 | 1 | 5 | 7 | 0 | 1 |
| 18 | STEREN | 00:02 | 00:11:05 | 00:27:32 | 6 | 0 | 72 | 4 | 4 | 17 | 2 | 2 |
| 19 | IDIT | 00:04 | 00:11:02 | 00:28:40 | 10 | 0 | 104 | 3 | 17 | 31 | 2 | 0 |
| 20 | YITZ | 00:07 | 00:11:00 | 00:28:15 | 6 | 0 | 94 | 4 | 12 | 22 | 5 | 0 |
| 21 | DARMON | 00:16 | 00:10:34 | 00:24:23 | 1 | 0 | 31 | 1 | 4 | 6 | 0 | 0 |
| 22 | AVNI | 00:14 | 00:10:19 | 00:27:06 | 3 | 2 | 105 | 5 | 9 | 21 | 3 | 0 |
| 23 | NAAMA | 00:01:07 | 00:10:06 | 00:20:52 | 0 | 0 | 23 | 1 | 3 | 4 | 0 | 0 |
| 24 | ZOHARI | 00:00 | 00:09:27 | 00:20:58 | 4 | 0 | 49 | 4 | 9 | 19 | 1 | 0 |
| 25 | PINHAS | 00:01:21 | 00:07:31 | 00:12:52 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |