API User Guide

API specification for Tangent integration interfaces

Version 2.5

Thông số kỹ thuật API cho giao diện tích hợp Tangent Phiên bản 2.5

About this document

This document describes the application programming interface specifications for integrating sales data to Tangent. It provides guidance to POS vendors and POS tenants in-charge wishing to submit and integrate via Web API.

Về tài liệu này

Tài liệu này mô tả các thông số kỹ thuật giao diện lập trình ứng dụng (API) để tích hợp dữ liệu bán hàng vào hệ thống Tangent. Tài liệu cung cấp hướng dẫn cho các nhà cung cấp POS và các bên quản lý POS muốn gửi và tích hợp dữ liệu thông qua Web API.

Target audience

POS software vendors / In-charge

Đối tượng sử dụng

Nhà cung cấp phần mềm POS / Người phụ trách

Authentication

- Basic authentication – username/passwords

  (note: this will be sent separately from this document)

- Production: Set OPEN / Staging: Set OPEN

User ID: postestuservn
Password: @APITest1234
Machine ID: 50100904

(note: we will be sending the actual url in the separate email)

Compulsory Requirement:

- 24 sales records each day representing hourly sales regardless if have sales or not. Every request should have Hour 00 to 23.
- Tenant should upload daily, including the sales data from the past 7 days to avoid any missing data.
- Fields should have 0 value, null not allowed for those Amount/Numeric/Decimal/Integer data type.
- GTO amount is nett sales amount after discount and before VAT. Include service charge for F&B . Also take note GTO is after deduct VOID and REFUND amount.

Yêu cầu bắt buộc:

- Mỗi ngày phải có 24 bản ghi doanh số đại diện cho doanh số theo từng giờ, bất kể có phát sinh giao dịch hay không. Mỗi lần gửi dữ liệu phải bao gồm từ giờ 00 đến 23.
- Đơn vị thuê phải tải lên dữ liệu hàng ngày, bao gồm cả dữ liệu doanh số của 7 ngày trước đó để tránh bị thiếu dữ liệu.
- Các trường dữ liệu kiểu Số tiền/Số học/Thập phân/Số nguyên không được phép để giá trị null, bắt buộc phải nhập giá trị 0 nếu không có dữ liệu.
- Số tiền GTO là doanh thu thuần sau khi trừ chiết khấu và trước VAT. Đối với ngành F&B phải bao gồm phí dịch vụ. Lưu ý số tiền GTO là sau khi đã trừ đi các khoản VOID và REFUND.

Steps on how to use the Tangent API

Login Process

Các bước sử dụng API của Tangent

Quy trình đăng nhập 1. Token generation API https://staging.synthesis.bz/posvn/v1/api/token

Request Format

Type : GET Content-Length: 50 content-type: application/json Request Body :

grant_type=password&username=postestuservn&password=@APITest1234

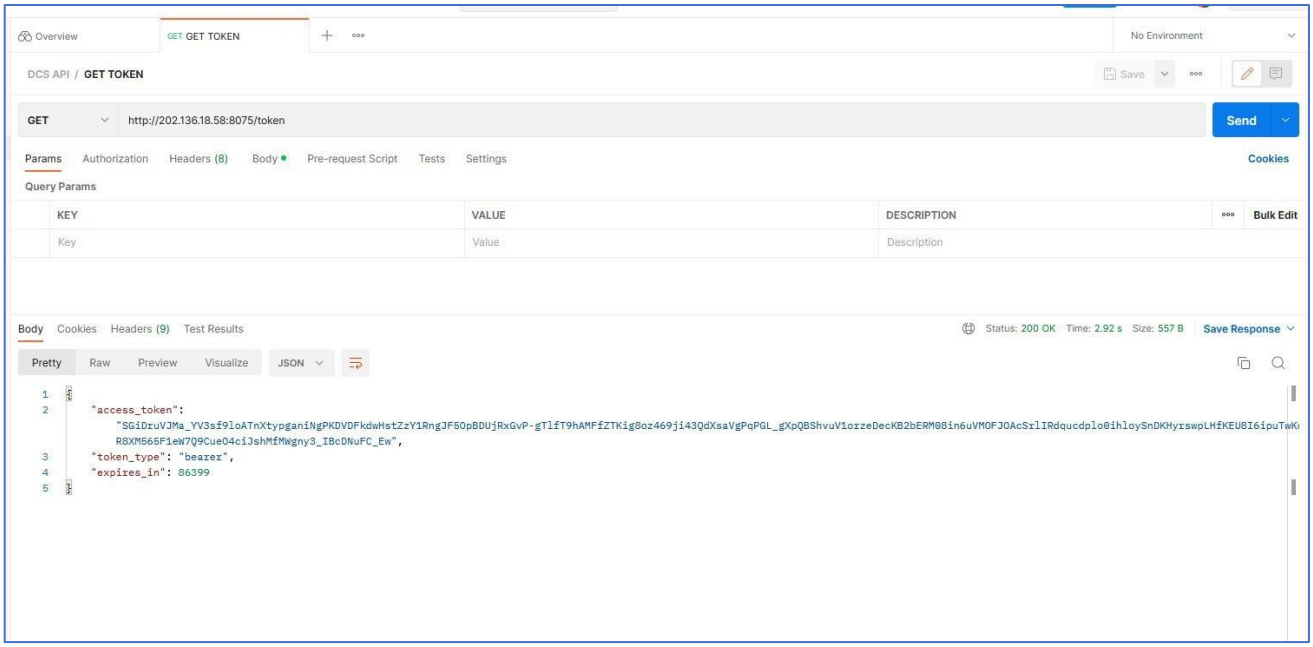
Result OK :

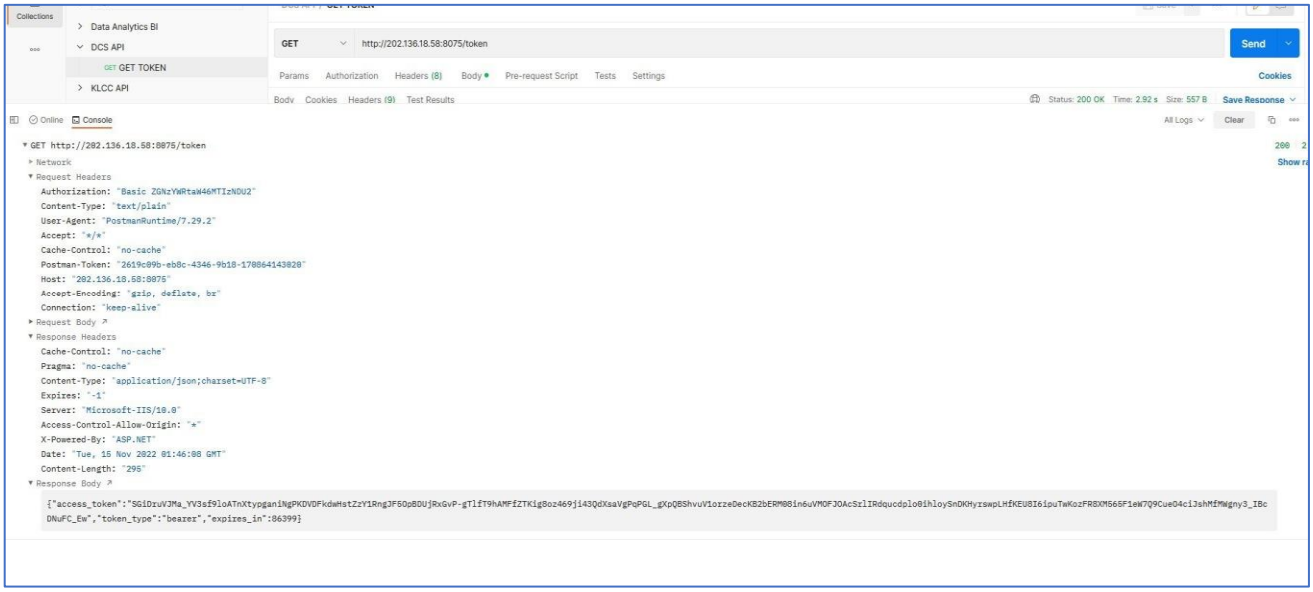
{"access_token":"W9kmptxWdTRnZLHxbBLjJZSOMefmnk_NQ5cALAGBdFNmNqrVxNHyPvqr9odoGDs7hlI_T9YN60kwwUIk_fL1240q4EFinKBpcsFRNBCNuX5mY7J68S1UXEII_fNGmS6kYNPdqRYPg3lk92YzlCkLHysP0BAuJ1x9P2rpiEg6D4nDkgQADa2H83oVfA66tXKrtq0EWU51ml3ZI3m7CDPqUQIf7krSSZsXC83ifpD7K2NYq_GCyaVxKzfd9E2","token_type":"bearer","expires_in":1799,".issued":"Sat, 15 Jun 2022 03:32:56 GMT",".expires":"Sat, 15 Jun 2022 04:02:56 GMT"}

Result Fail :

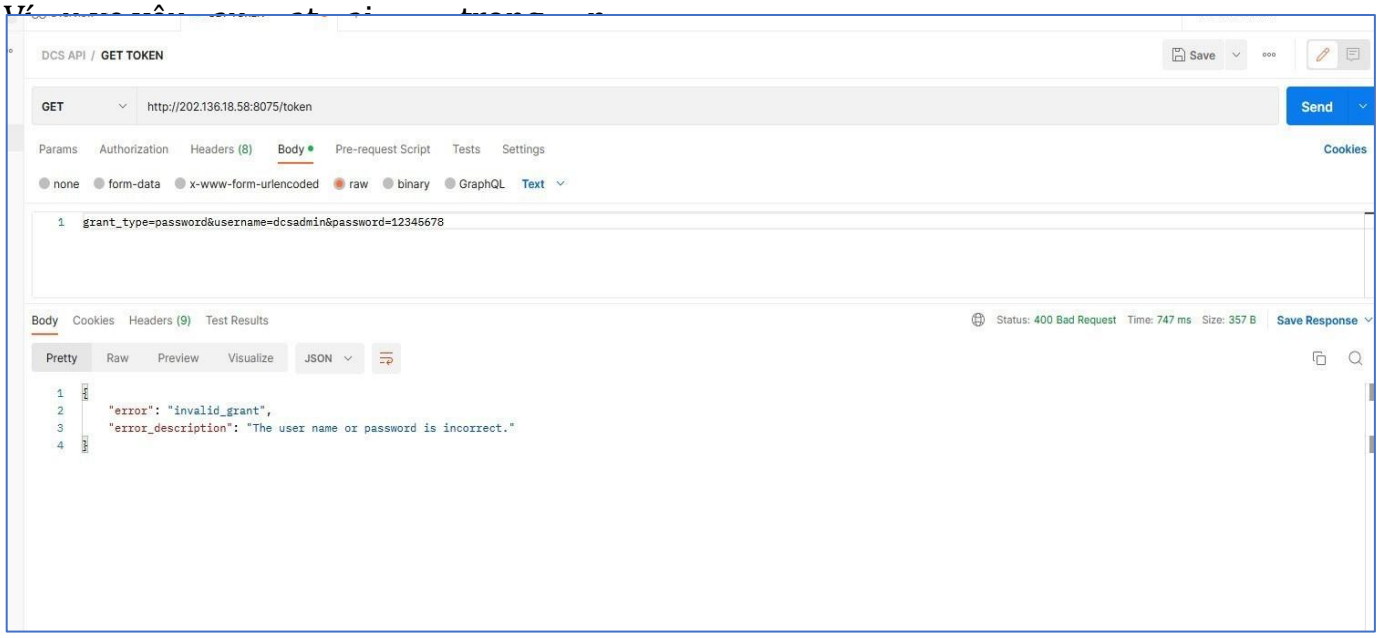
{"error":"invalid_grant","error_description":"The user name or password is incorrect."}

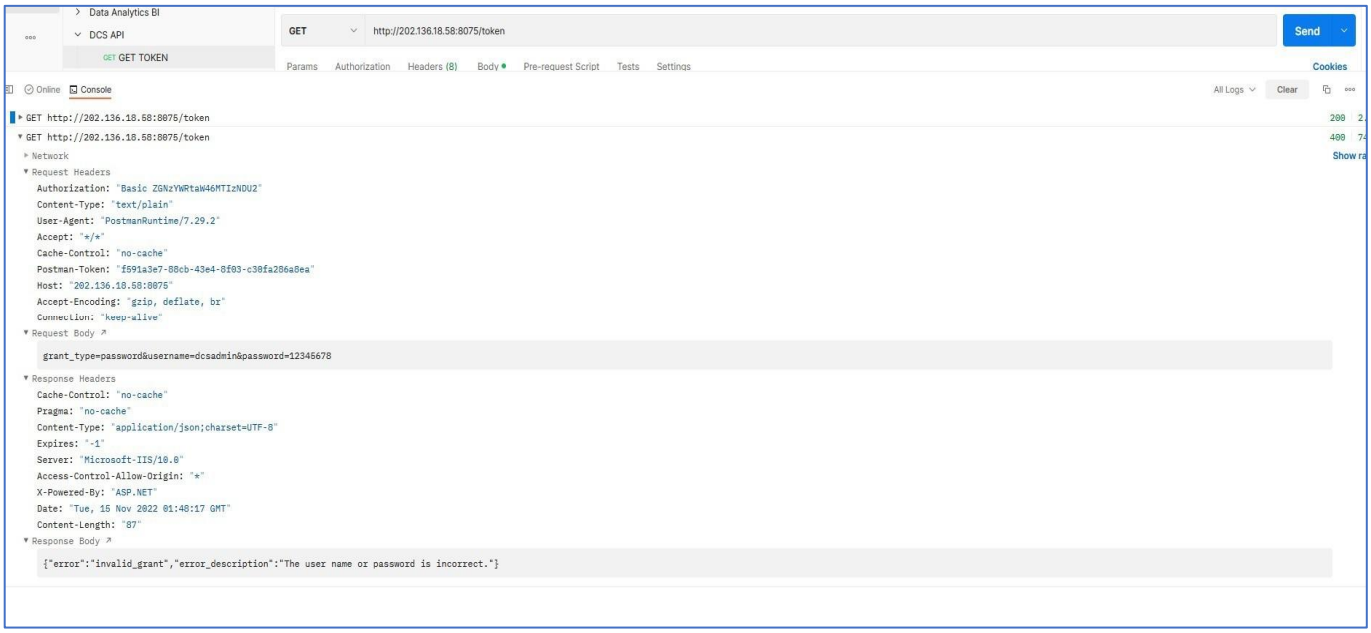
Example of GetToken Success response in Postman





Example of Failed request in Postman





Send Sales to Tangent (HOURLY)

Once the token is obtained. Refer to Step #1. The token needs to be use and pass that during request in the Authorization Header.

Gửi doanh số tới Tangent (THEO GIỜ)

Sau khi nhận được token (tham khảo Bước #1), token này cần được sử dụng và truyền vào phần Authorization Header khi gửi yêu cầu.

Example Request:

Type : POST

Host: https://staging.synthesis.bz/posvn/v1/api/SalesHourly

Content-Length: 159 content-type: application/json

Authorization: Bearer qqqIqBNzxrSQ461B4ovJV_hyFWGLGGpI9GMRx2s0pr007g6TzOGufzLTIMG1Gn5Y4q7HQG9mruxzad nfoc4ad 3EVgvrHgaE2BifBEiADW3c_tkNY_jEpOiklDnYA9GhJjm7oq1H5VBIo2hO57FYxktIYHXG Request

Body :


```
{"sales":
 [{"sale":
  {"machineid": "50100904","batchid": "1", "date": "2021-12-15","hour": "20","receiptcount": "50",
   "gto": "1291.54","VAT": "10.55","discount": "0",  "servicecharge": "5.10","noofpax": "0",  "cash": "8.97",
  "ATM": "0", "visa": "76.78", "mastercard": "0",  "amex": "47.80",  "voucher": "0",  "othersamount": "57.99",
"VATregistered": "N"}
 }]

}
```


URL	/api/SalesHourly
Example URL	https://staging.synthesis.bz/posvn/v1/api/SalesHourly
Method	POST
Description	Sends a list of sales records to Tangent. At least 24 arrays of sales records of sale object that represent the hourly sales on each day. It will perform an update on each record if already exist, otherwise, new Sales record is created if not yet locked.
API Limits	A single request cannot exceed 128 KB (preferably below 1000 records) or at maximum of 1 month of sales each made request.

URL /api/SalesHourly
Ví dụ URL https://staging.synthesis.bz/posvn/v1/api/SalesHourly
Phương thức POST
Mô tả Gửi danh sách các bản ghi doanh số bán hàng tới Tangent. Mỗi yêu cầu phải chứa ít nhất 24 mảng bản ghi doanh số, mỗi bản ghi đại diện cho doanh số theo từng giờ trong ngày. Nếu bản ghi đã tồn tại, hệ thống sẽ cập nhật; nếu chưa bị khóa và chưa tồn tại, sẽ tạo mới bản ghi doanh số.
Giới hạn API Một lần gửi không được vượt quá 128 KB (nên dưới 1000 bản ghi), hoặc tối đa dữ liệu doanh số của 1 tháng cho mỗi lần gửi.

Request Body	Description

JSON list
Example Value
{
"sales": [
{
"sale": {
"machineid": "50100904",
"batchid": "1",
"date": "20220125",
"hour": "00",
"receiptcount": "5",
"gto": "191.54",
"VAT": "1.55",
"discount": "0.00",
"servicecharge": "5.00",
"noofpax": "0",
"cash": "8.97",
"ATM": "0.00",
"visa": "76.78",
"mastercard": "0.00",
"amex": "47.80",
"voucher": "0.00",
"othersamount": "57.99",
"VATregistered":
"N" }
},
{
"sale": {
"machineid": "50100904",
"batchid": "1",
"date": "20220125",
"hour": "01",
"receiptcount": "15",
"gto": "391.54",
"VAT": "12.65",
"discount": "10.00",
"servicecharge": "0.00",
"noofpax": "0",
"cash": "18.97",
"ATM": "0.00",
"visa": "176.78",
"mastercard": "0.00",
"amex": "47.80",
"voucher": "0.00",
"othersamount": "0.00",
	Sales request object
	List of Sales records Hourly
	
	Machine Id,
	ZReport closing number.
	Date of sales, mandatory field, in yyyyMMdd format.
	Hour of sales, mandatory field, in HH format. (24 hour)
	Number of transactions/receipt issued within the hour.
	GTO sales for the hour.
	VAT amount.
	Discount amount.
	Service charge for F&B only.
	No of persons for F&B only.
	Cash after discount and before VAT.
	ATM after discount and before VAT.
	VISA after discount and before VAT.
	Mastercard after discount and before VAT.
	AMEX after discount and before VAT.
	Voucher after discount and before VAT.
	Others after discount and before VAT.
	If VAT registered.
	
	Machine Id,
	ZReport closing number.
	Date of sales, mandatory field, in yyyyMMdd format.
	Hour of sales, mandatory field, in HH format. (24 hour)
	Number of transactions/receipt issued within the hour.
	GTO amount.
	VAT amount.
	Discount amount.
	Service charge for F&B only.
	No of persons for F&B only.
	Cash after discount and before VAT.
	ATM after discount and before VAT.
	VISA after discount and before VAT.
	Mastercard after discount and before VAT.
	AMEX after discount and before VAT.
	Voucher after discount and before VAT.
	Others after discount and before VAT.

"VATregistered": "N" } }] }	If VAT registered.

NOTE: Hour 00 represents 00:00 – 00:59am Hour 01 represents 01:00 – 01:59 am Hour 12 represents 12:00 – 12:59pm Hour 23 represents 23:00 – 23:59 pm The system expects 24 hours of records on each day sale. Otherwise, it will return an error.	

machineid (provided by Mall Management)	Numeric	8	99999999
batchid (Z report closing number)	Numeric	12	999999999999
date	Numeric	8	YYYYMMDD
hour	TEXT	2	99 (should be 00-23)
receiptcount (Number of transactions / receipts issued within the hour)	Numeric	12	999999999999 (no decimal)
gto (Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99
VAT	Numeric	12	999999999.99
discount	Numeric	12	999999999.99
servicecharge	Numeric	12	999999999.99
noofpax	Numeric	12	999999999999 (no decimal)
cash (Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99
atm (Nett sales amount after Discount and before VAT. Include service charge for F&B only) ** This is using ATM / DEBIT CARD	Numeric	12	999999999.99
visa (Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99
mastercard (Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99
amex (Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99

voucher(Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99
othersamount (Nett sales amount after Discount and before VAT. Include service charge for F&B only)	Numeric	12	999999999.99
vatregistered	Char	1	Y or N

Responses

Code	Description

200
Example Value
{
"status": "success",
"message": "total sales records received: 24. total sales records created in Tangent: 24."
}
	Sales response object
	
	Process execution status. “success” = execution has no errors. Success message containing record counts.

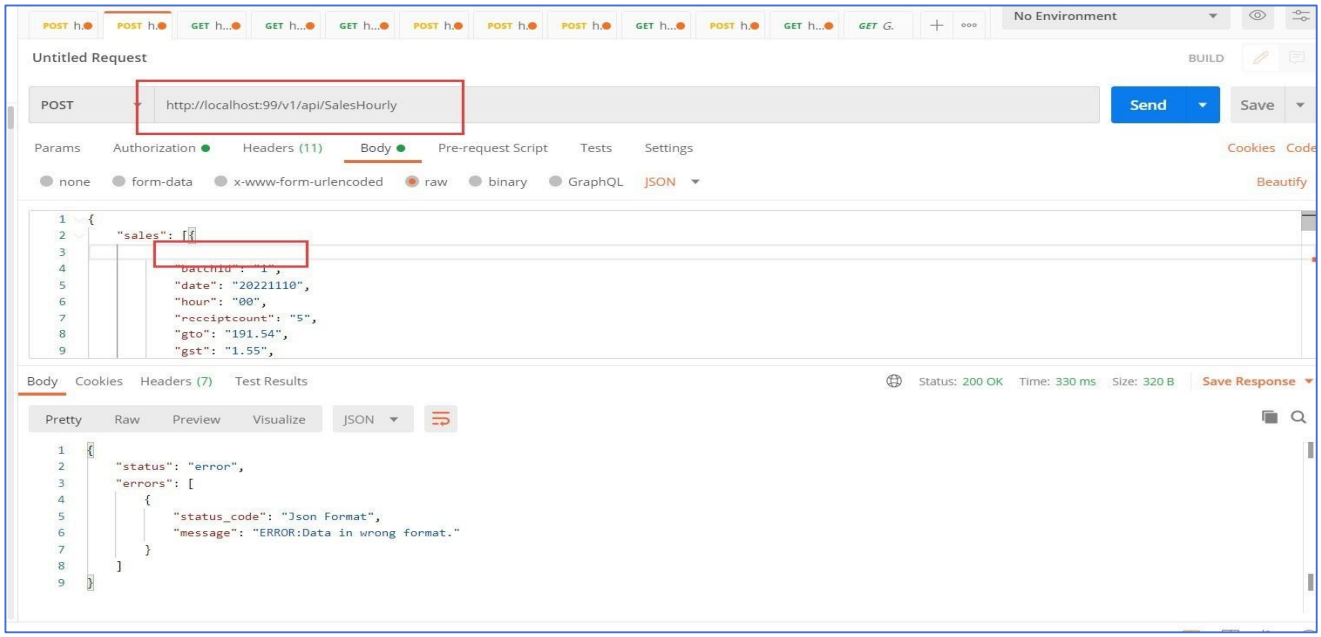
500
Example Value
{
"status": "error",
"errors": [{
"status_code": " TANGENT_GENERIC_EXCEPTION",
"message": "Error in Tangent API."
}]
}
	Process execution status. “error” = some errors in the execution. Error code. i.e. “TANGENT_GENERIC_EXCEPTION” means a custom Tangent generated error in event of execution or connectivity errors. Details of error.

RESULT	Action
ERROR: Invalid User Account	Please check User id and password
ERROR: Invalid Token	Invalid user account or token is expired.
ERROR: Total number of arrays is not tally with the assigned settings for this machine.	Machine is not setup to send Hourly format in 24 lines or arrays.
ERROR: MachineID pattern is not matched. Array No: 1	Check the Machine ID format, assigned to this mall
ERROR: BatchID pattern not matched XXXX. Array No: 1	Check the Batch ID should be integer
ERROR: Invalid date pattern. Date is not matched XXXXXXXX. Array No:1	Check the Sales Date, YYYYMMDD format
ERROR: Hour pattern not matched. XX.XXXXXXX. Array No: 1	Check the Hour should be 00, 01, 02.. to 23 only.
ERROR: Receipt Count pattern not matched XXXXX. Array No: 1	Check the Receipt Count value should be integer and no decimal
ERROR: GTO pattern not matched XXXXX. Array No: 1	Check the GTO amount format
ERROR: VAT pattern not matched XXXX. Array No: 1	Check the VAT amount format
ERROR: Discount pattern not matched XXXX. Array No: 1	Check the Discount amount format

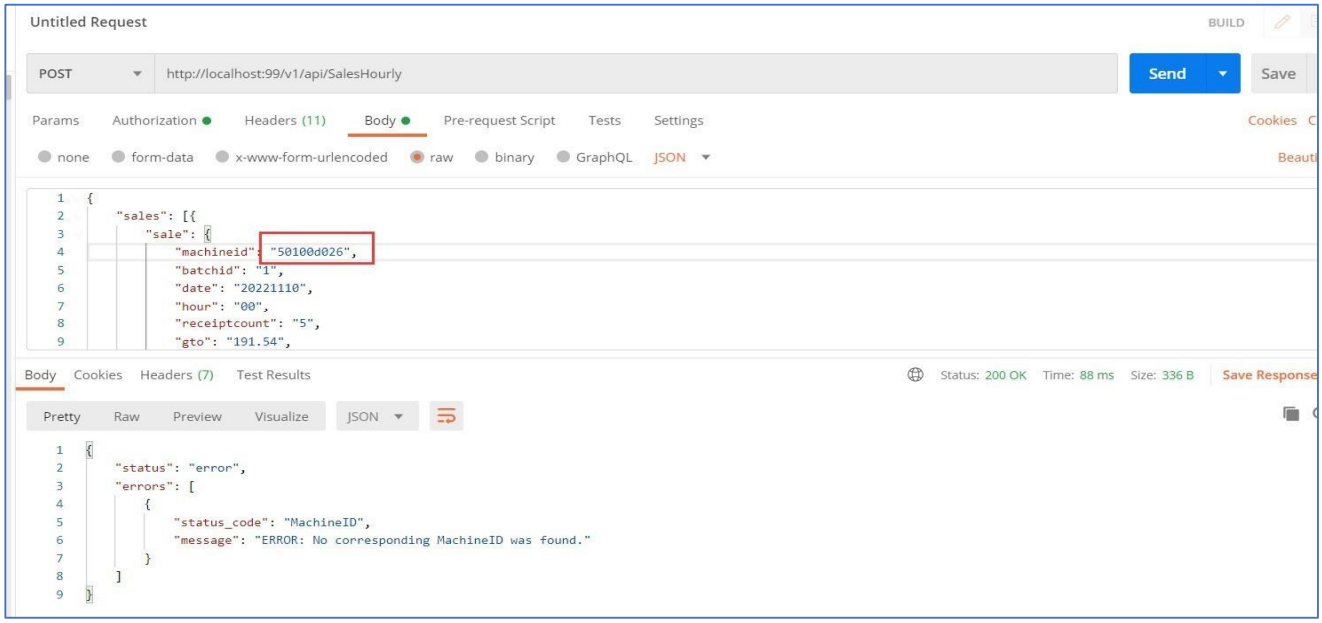
ERROR: Service charge pattern not matched XXXX. Array No: 1	Check the Service Charge amount format
ERROR: NoOfPax pattern not matched XXXX. Array No: 1	Check the No of Pax value should be integer.
ERROR: Cash amount pattern not matched XXXX. Array No: 1	Check the Cash amount format
ERROR: ATM amount pattern not matched XXXX. Array No: 1	Check the ATM amount format
ERROR: VISA amount pattern not matched XXXX. Array No: 1	Check the VISA amount format
ERROR: Mastercard amount pattern not matched XXXX. Array No: 1	Check the Mastercard amount format
ERROR: AMEX amount pattern not matched XXXX. Array No: 1	Check the AMEX amount format
ERROR: Voucher amount pattern not matched XXXX. Array No: 1	Check the Voucher amount format
ERROR: Others amount pattern not matched XXXX. Array No: 1	Check the Others amount format
ERROR: VAT Registered pattern not matched. Y or N only XXXX. Array No: 1	Check the VAT value Y or N only
SUCCESS	Sales records are successfully saved into the Database

Example of Failed Request

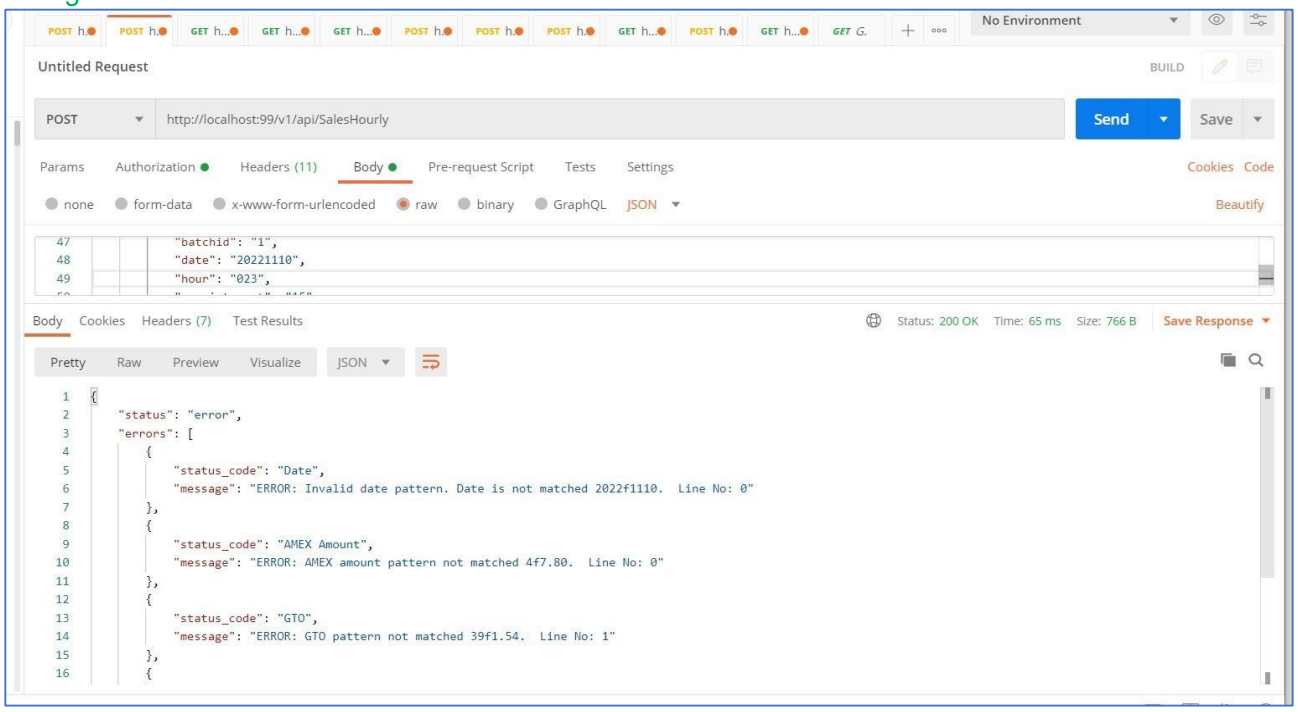
Wrong JSON Format



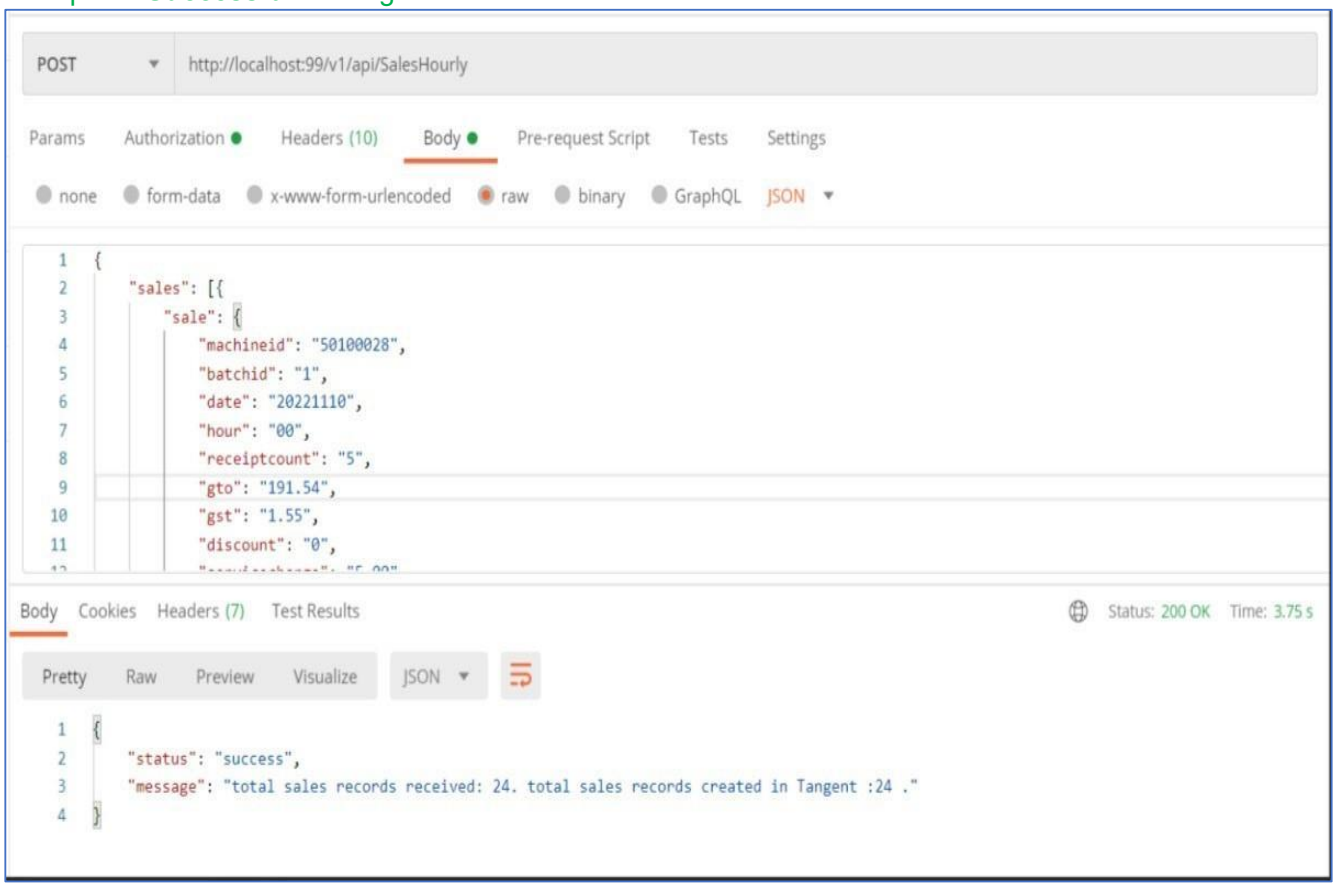
Machine ID Not Found

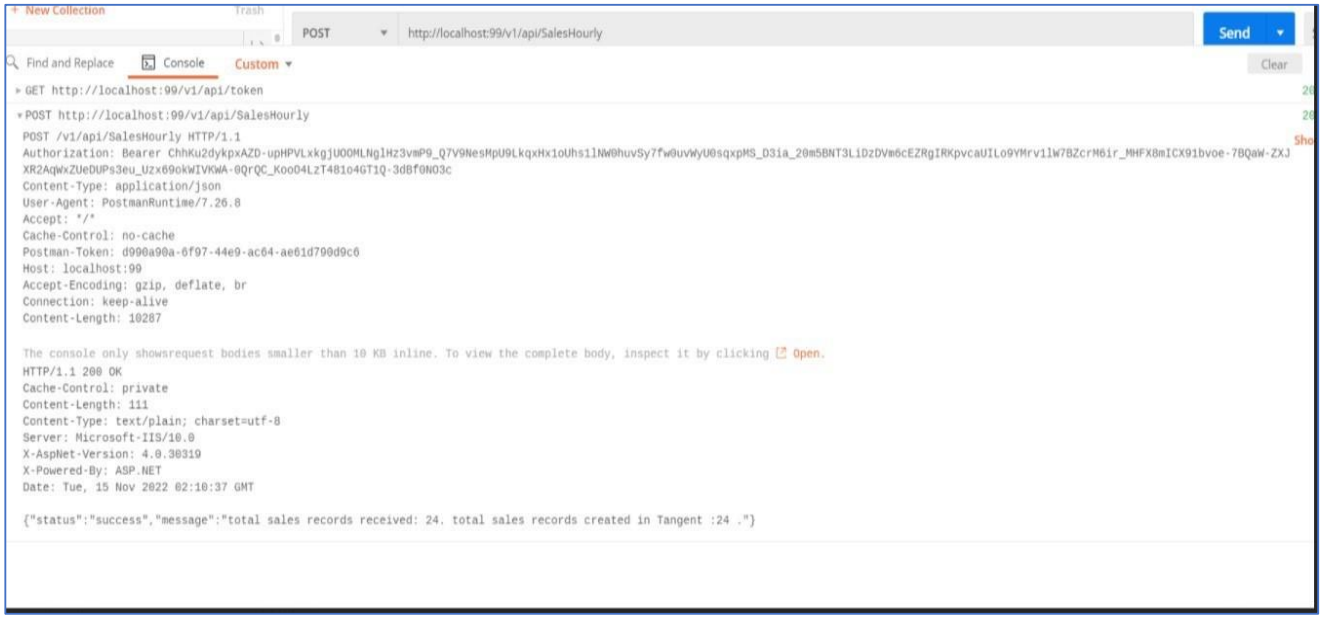


Wrong Data Format



Example of **Successful** Posting of Sales





For the request Body, please refer to the json sample file that will be provided for reference purposes.

Về phần Request Body, vui lòng tham khảo file mẫu định dạng JSON sẽ được cung cấp để đối chiếu và tham khảo.

DCS
synthesis

TANGENT 360
Tenant Sales Management System

PORTAL 360