

# Tony Nahra

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## SKILLS

**Summary:** 25 years experience developing software, managing systems, reporting, planning, evaluating and budgeting

**Technologies:** MS-SQL, PowerBI, Fabric, Epic systems, Oracle, Azure, AWS, Web Services, Excel, Access, SharePoint

**Programming:** Python, Pandas, ETL, OLAP, Tableau, C#, JavaScript, PHP, SQL, VBA, APEX, XML, HTML5, Office365 Add-ins

**Project Management:** Agile, ITIL, PMI, Atlassian Jira, Github, Microsoft Projects

## PROFESSIONAL EXPERIENCE

### UI Health Care: CCA division

Jul. 2023 – Present

Coralville, Iowa, 52241, USA

*Application Developer*

Application development and administration of various systems:

- Epic Unified Communication, Voalte administration, Message Media, Securitas RTLS and MS Teams
- Member of two governance groups: MS-Teams and Message Media

### Patient Education Institute

Jul. 2001 – June 2023

Coralville, Iowa, 52241, USA

*Senior Analyst Programmer*

Interactive Tutorial Engine/Player with LMS integration:

- Designed and developed a tutorial player with voice narration, questions, feedback, glossary, scoring features and multilingual capabilities to improve learning outcomes and increase user engagement
- Database Driven LMS with completion records, response analysis and usage reporting
- Worked with major healthcare institutions: NLM, Kaiser Permanente, Cleveland Clinic, HCA and others
- Managed projects across continents and in different languages
- Generated training material and plans

### Abu Dhabi Investment Authority

Feb. 1994 – Jun. 2001

Abu Dhabi, U.A.E.

*IT Education Consultant*

Financial systems data analysis:

- Assisted financial analysts build models, data warehouse, OLAP and drill down
- Automated tasks and consolidated data from Reuters, Bloomberg and other sources
- Generated periodic reports, statistical regression, back-testing, and time-series seasonality analysis

## CERTIFICATION

Epic Systems	EpicCare Inpatient Clinical Documentation	Oct 2024
Epic Systems	Data Courier Mover Badge	Nov 2024
Microsoft	Fabric Analytics Engineer Associate	Jun 2025
Oracle University	APEX cloud developer certified professional	May 2025
Oracle University	AI vector search certified professional	May 2025
Atlassian	Agile Project Management Professional	Jun 2025

## EDUCATION

American University of Beirut	Beirut, Lebanon	Aug 1988
Bachelor of Engineering	Electrical Engineering	

# Screenshots of sample projects that I designed and developed

A RTLS DrillDown report to show the count of RTLS tags per category.

Table

Count

Asset

Serial\_Number

Manufacturer

Business Statu

Primary Catego

Category 3

Department 1

Department 2

Department 3

Department 4

Department 5

Group 1

Model

Rating

Category 1

Category 2

Manufacturer (120)

Filter values

Select AllSelect None

☒ (1182)

☒ 2141 (8)

☒ Stryker (1)

☒ 3M (5)

☒ ALCO (236)

☒ ASC - SmartNav (1)

☒ Actuated Medical (1)

☒ Alco (10)

☒ Ambu (1)

☒ Anacom-MedTek (8)

ApplyCancel

Category 2

Totals

3,496

Equipment

37

Feeding Pumps

169

Heat Therapy Pumps

5

Infusion Pump

5,140

Kangaroo ePump

1

Large Volume Pump

4

Medical Devices

1,142

PC Unit

1

Pacemakers

1

Patient Warmers

3

Phototherapy Lights

35

Surgical Traction Device

5

Video Laryngoscope (Main OR)

1

null

10,041

Totals

20,081

Actual numbers have been modified for demo purpose

Voalte report to calculate monthly average Time\_To\_Read messages then use UNION to combine with other months

```
SELECT
  "04-24" AS [ "MM-YY" ],
  int( Max(
    24 * 60 * 60 * ( IowaText_Apr2024.Read - IowaText_Apr2024.Delivered )
    ) / 3600 / 24 ) AS Max_TTR_days
FROM
  IowaText_Apr2024
WHERE
  IowaText_Apr2024.Delivered > 0 AND IowaText_Apr2024.Read > 0 AND IowaText_Apr2024.[Distribution Type] = "One-to-One"
```

SELECT \* from Avg\_TTR\_Jan\_2024 Union SELECT \* from Avg\_TTR\_Feb\_2024 Union SELECT \* from Avg\_TTR\_Mar\_2024 UNION SELECT \* from Avg\_TTR\_Apr\_2024

A DrillDown RTLS report using the LastSeen field to analyze who has not been using their RTLS tag per Dept. / Building

```
28 def DateRange12Month(X):
29     if X > 180 and X < 365 :
30         return "X"
31     else:
32         return ""
33 def DateRangeInYear(X):
34     if X > 365 :
35         return "X"
36     else:
37         return ""
38
39 GRP=dataset.groupby(['Department']).agg(Cnt=('TagID', len), Last=('LastDate', np.max))
40 GRP["LastSeen"] = ( dt.datetime.now() - GRP['Last'] ).dt.days
41 GRP["Within_1_month"] = GRP['LastSeen'].apply(DateRange1Month)
42 GRP["Within_3_months"] = GRP['LastSeen'].apply(DateRange3Month)
43 GRP["Within_year"] = GRP['LastSeen'].apply(DateRange12Month)
44 GRP["more_than_year"] = GRP['LastSeen'].apply(DateRangeInYear)
45 GRP = GRP.drop( ['Last'] , axis=1)
```

Python Pandas  
code used to  
generate the  
PIVOT below

Table	Count	↕ ↔	Last_seen_within_1_month	Last_seen_within_3_
StaffName	Department			
TagID				
Location				
LastDate				
LastSeen				

	Last_seen_within_1_month		X	
	Last_seen_within_3_months		X	
	Last_seen_within_year		X	Totals
Department	Last_seen_more_than_year	X		
		87	14	14
1JPW			1	1
2JCP				1
2JPE				3
2JPW		1	2	10
2RCP				1

Count numbers  
are clickable to  
drill into TagIDs

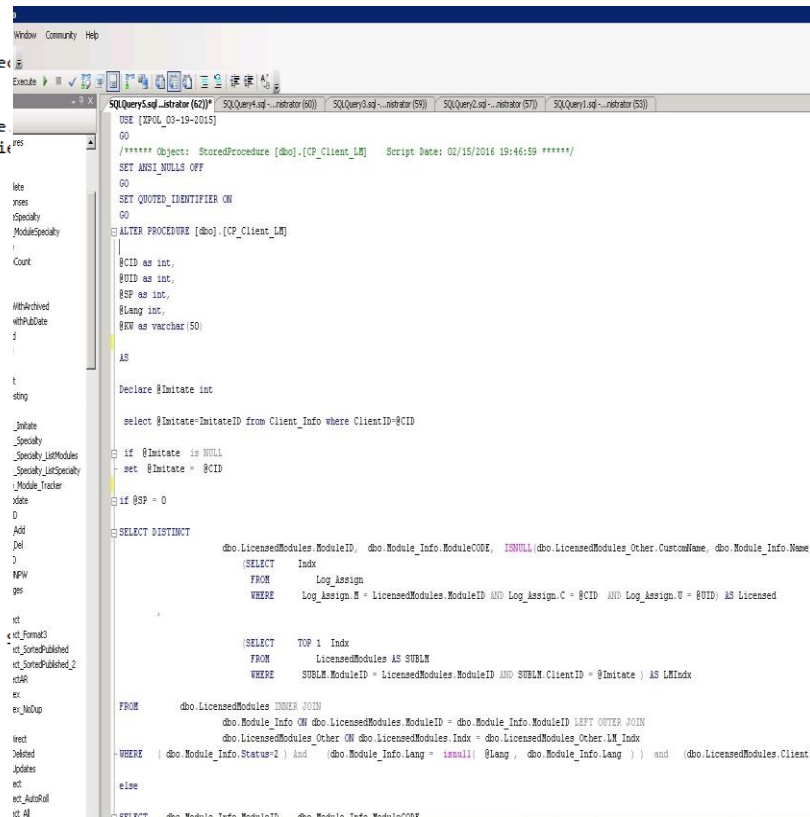
Table	Name	Unit
Count	AT	
Building	AT	
	Building	AT
	Ambulatory Clinics	57
	Anesthesia	1
	Capital Management	3
	Cardiothoracic Surgery	2
	Care Coordination Division	2
	Carver College of Medicine (CCOM)	6
	Center for Disabilities and Development	4
	Central Sterilizing Services	6
	Clinical Quality, Safety & Performance Improvement	8
	Compassus	2
	Compliance	2
	Dermatology	2
	Emergency Medicine	9
	Engineering Services	40
	Environmental Services	1
	Family Medicine	1
	Food & Nutrition Services	3
	Guest Services	7
	HCIS	21
	Heart and Vascular Center (HVC)	6
	Holden Comprehensive Cancer Center (HCCC)	21
	Hospital Administration	3
	Hospital Dentistry	1
	Housewide Services	5
	Inpatient Units	1
	Institute for Clinical and Translational Science	1
	Integrated Call Center (ICC)	18
	Internal Medicine	7
	Iowa River Landing	5
	Joint Office of Patient Financial Services	65
	Marketing and Communication	6

Voalte PIVOT  
report for who  
is using which  
format:  
1: VoalteOne  
M: Mobile  
D: Desktop

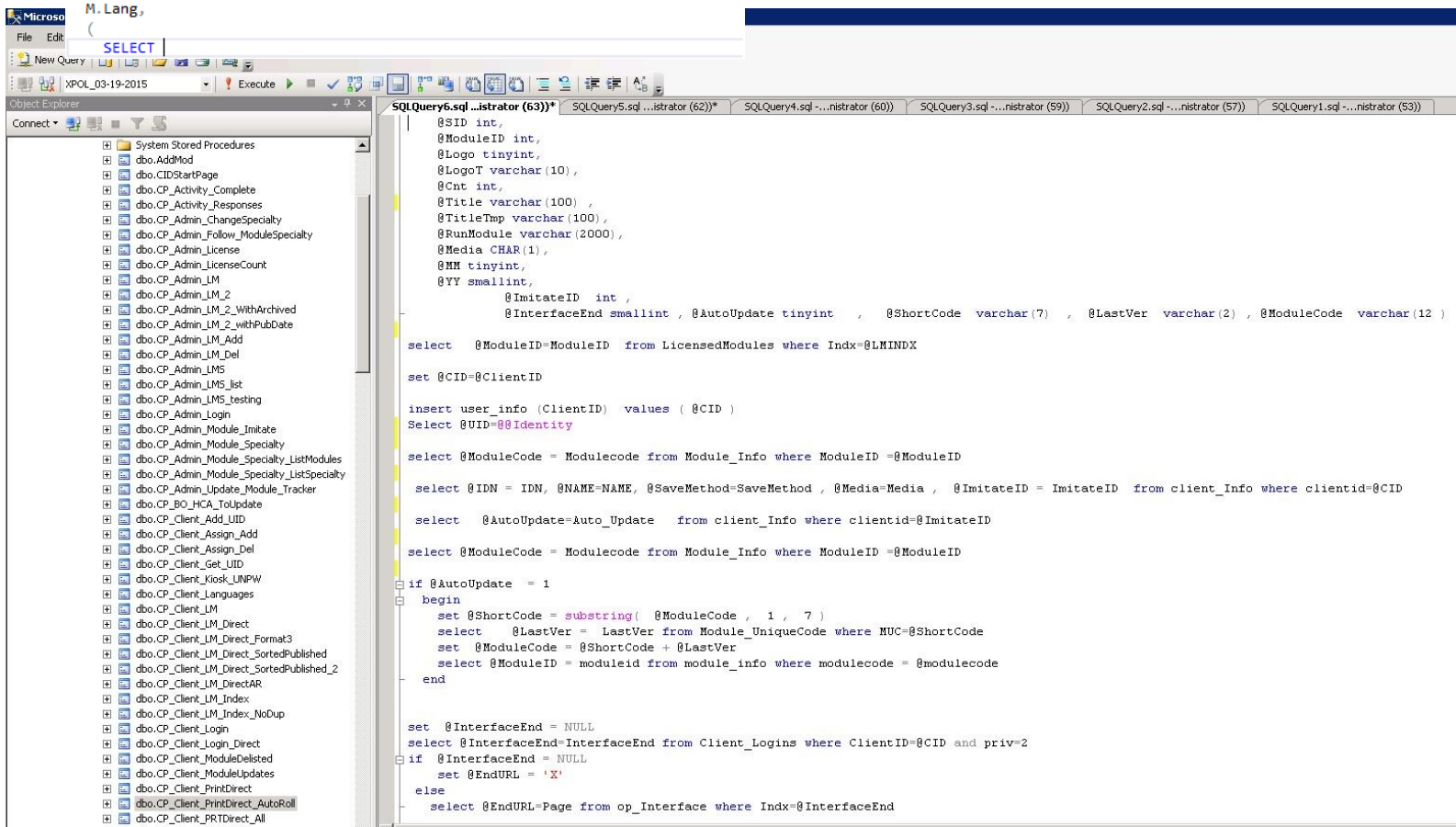
Actual numbers have been modified for demo purpose

## MS-SQL stored procedures that I developed for an online training system documenting completion

```
module_info.Name as Title,
module_info.Type as Type,
@CID as ClientID,
dbo.Specialties.SPname as DespSpecialty
FROM
dbo.Module_Info
INNER JOIN dbo.Module_Specialty ON dbo.Module_Info.ModuleID = dbo.Module_Specialty.ModuleID
INNER JOIN dbo.Module_Type ON dbo.Module_Info.Type = Module_Type.Indx
INNER JOIN dbo.Specialties Spe ON dbo.Module_Info.Specialty = Spe.SP
INNER JOIN dbo.Module_Language ON dbo.Module_Info.Lang = dbo.Module_Language.Lang
INNER JOIN dbo.Specialties ON dbo.Module_Specialty.Specialty = dbo.Specialties.Specialty
WHERE
(
    dbo.Module_Info.ModuleCode = @FiltK
)
and (dbo.Module_Info.Status <> 3) else if @SpDest = -2
SELECT
    TOP 100 PERCENT M.ModuleID AS ModuleID,
    M.ModuleCode,
    M.Lang,
    1 AS Licensed,
    Specialties_1.SPName AS Specialty,
    dbo.Module_Language.[Language],
    M.Name AS Module_Title,
    MT.M_Type AS asType,
    dbo.LicensedModules.ClientID,
    Specialties_1.SP AS DestSpecialty
FROM
    dbo.Module_Info M
INNER JOIN dbo.Module_Language ON M.Lang = dbo.Module_Language.Indx
INNER JOIN dbo.Module_Type MT ON M.Type = MT.Indx
INNER JOIN dbo.Specialties Spe ON M.Specialty = Spe.SP
INNER JOIN dbo.LicensedModules ON M.ModuleID = dbo.LicensedModules.ModuleID
INNER JOIN dbo.Specialties Specialties_1 ON dbo.LicensedModules.Specialty = Specialties_1.Specialty
WHERE
(
    M.Type = ISNULL(@Type, M.Type)
)
AND M.Status <> 3
AND dbo.LicensedModules.ClientID = @CID
and M.Specialty = isnull(@FiltS, M.Specialty)
and M.[Lang] = isnull(@FiltL, M.[Lang])
and M.ModuleCode + M.Name + M.keywords like '%' + isnull(@FiltK, '') + '%'
ORDER BY
    M.Sorting,
    M.Name else
SELECT
    TOP 100 PERCENT M.ModuleID AS ModuleID,
    M.ModuleCode,
    M.Lang,
```



```
USE [XPOL_03-10-2015]
GO
/***** Object: StoredProcedure [dbo].[CP_Client_LM] Script Date: 02/15/2016 19:46:59 *****/
SET ANSI_NULLS OFF
GO
SET QUOTED_IDENTIFIER ON
GO
ALTER PROCEDURE [dbo].[CP_Client_LM]
    @CID as int,
    @UID as int,
    @SP as int,
    @Lang as int,
    @BW as varchar(50)
AS
    Declare @Imitate as int
    select @Imitate=ImitateID from Client_Info where ClientID=@CID
    if @Imitate is NULL
    set @Imitate = @CID
    if @SP = 0
    SELECT DISTINCT
        dbo.LicensedModules.ModuleID, dbo.Module_Info.ModuleCode, ISNULL(dbo.LicensedModules.Other.CustomName, dbo.Module_Info.Name) AS Title,
        (SELECT Indx FROM Log_Assign WHERE Log_Assign.M = LicensedModules.ModuleID AND Log_Assign.C = @CID AND Log_Assign.U = @UID) AS Licensed
    FROM
        dbo.LicensedModules INNER JOIN
        dbo.Module_Info ON dbo.LicensedModules.ModuleID = dbo.Module_Info.ModuleID LEFT OUTER JOIN
        dbo.LicensedModules_Other ON dbo.LicensedModules.Indx = dbo.LicensedModules_Other.LM_Indx
    WHERE (dbo.Module_Info.Status=1) and (dbo.Module_Info.Lang = isnull(@Lang, dbo.Module_Info.Lang)) and (dbo.LicensedModules.ClientID = @CID)
    else
    SELECT
        dbo.Module_Info.ModuleCode, dbo.Module_Info.Name,
```



```
SQLQuery6.sql...istrator (63)*
    @SID int,
    @ModuleID int,
    @Logo tinyint,
    @LogoT varchar(10),
    @Cnt int,
    @Title varchar(100),
    @TitleTmp varchar(100),
    @RunModule varchar(2000),
    @Media CHAR(1),
    @MM tinyint,
    @YY smallint,
    @ImitateID int,
    @InterfaceEnd smallint, @AutoUpdate tinyint, @ShortCode varchar(7), @LastVer varchar(2), @ModuleCode varchar(12)
select @ModuleID=ModuleID from LicensedModules where Indx=@LMINDX
set @CID=@ClientID
insert user_info (ClientID) values ( @CID )
Select @UID=@@Identity
select @ModuleCode = Modulecode from Module_Info where ModuleID =@ModuleID
select @IDN = IDN, @NAME=NAME, @SaveMethod=SaveMethod, @Media=Media, @ImitateID = ImitateID from client_Info where clientid=@CID
select @AutoUpdate=Auto_Update from client_Info where clientid=@ImitateID
select @ModuleCode = Modulecode from Module_Info where ModuleID =@ModuleID
if @AutoUpdate = 1
begin
    set @ShortCode = substring( @ModuleCode, 1, 7 )
    select @LastVer = LastVer from Module_UniqueCode where MUC=@ShortCode
    set @ModuleCode = @ShortCode + @LastVer
    select @ModuleID = moduleid from module_info where modulecode = @modulecode
end
set @InterfaceEnd = NULL
select @InterfaceEnd=InterfaceEnd from Client_Logins where ClientID=@CID and priv=2
if @InterfaceEnd = NULL
set @EndURL = 'X'
else
select @EndURL=Page from op_Interface where Indx=@InterfaceEnd
```

## mySql ( that does not support PIVOT function ) query for cross tabulation

```
2  SELECT
3      TOP 100 PERCENT Specialties.SPName AS Specialty,
4      SUM( CASE WHEN module_info.Lang = 1 THEN 1 ELSE 0 END ) AS English,
5      SUM( CASE WHEN module_info.Lang = 2 THEN 1 ELSE 0 END ) AS Spanish,
6      SUM( CASE WHEN module_info.Lang = 3 THEN 1 ELSE 0 END ) AS Arabic,
7      SUM( CASE WHEN module_info.Lang = 4 THEN 1 ELSE 0 END ) AS Vietnamese
8  FROM
9      LicensedModules
10     INNER JOIN Module_Info ON LicensedModules.ModuleID = Module_Info.ModuleID
11     INNER JOIN Specialties ON LicensedModules.Specialty = Specialties.SP
12     INNER JOIN Module_Language ON Module_Info.Lang = Module_Language.Indx
13 WHERE LicensedModules.ClientID = 91
14 GROUP BY
15     Specialties.SPName,
16     Specialties.Type,
17     Module_Info.Status
18 HAVING
19     Specialties.Type = 1 AND Module_Info.Status = 2
20 ORDER BY
21     Specialty
```

```
2  ALTER PROCEDURE [CP_Survey_Analysis]
3  @ClientID smallint,
4  @ModID varchar(10),
5  @d1 smalldatetime,
6  @d2 smalldatetime AS
7  SELECT
8      TOP 100 PERCENT Activity_Responses.QuestionNumber,
9      Activity_Responses.UserResponse,
10     COUNT(Activity_Responses.Indx) AS cnt,
11     Module_Questions.Text AS Question,
12     Module_Answers.Text AS Reply,
13     Log_Activity.ClientID
14 FROM
15     Activity_Responses
16     INNER JOIN Log_Activity ON Activity_Responses.ActivityIndex = Log_Activity.Indx
17     INNER JOIN Module_Info ON Log_Activity.ModuleID = Module_Info.ModuleID
18     INNER JOIN Module_Questions ON Activity_Responses.QuestionNumber = Module_Questions.Qcode
19     AND Module_Info.ModuleCODE = Module_Questions.ModuleCode
20     INNER JOIN Module_Answers ON Activity_Responses.QuestionNumber = Module_Answers.Qcode
21     AND Activity_Responses.UserResponse = Module_Answers.Answer
22     AND Module_Info.ModuleCODE = Module_Answers.ModuleCode
23 WHERE
24     Activity_Responses.DT BETWEEN @d1 AND @d2
25 GROUP BY
26     Activity_Responses.QuestionNumber,
27     Activity_Responses.UserResponse,
28     Module_Info.ModuleCODE,
29     Module_Questions.Text,
30     Module_Answers.Text,
31     Log_Activity.ClientID
32 HAVING
33     Log_Activity.ClientID = @ClientID
34     AND Module_Info.ModuleCODE = @ModID
35 ORDER BY
36     Activity_Responses.QuestionNumber,
37     Activity_Responses.UserResponse
```



# Database export to XML for a MedlinePlus static website project

MedlinePlus: Interactive Health Tutorials - Microsoft Internet Explorer

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Back Forward Stop Search Favorites Media

Address http://www.nlm.nih.gov/medlineplus/tutorial.html Go Links

Site navigation

## MedlinePlus

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### Interactive Health Tutorials

The tutorials listed below are interactive health education resources from the [Patient Education Institute](#). Using animated graphics each tutorial explains a procedure or condition in easy-to-read language. You can also listen to the tutorial.

**NOTE:** These tutorials require a special Flash plug-in, version 4 or above. If you do not have Flash, you will be prompted to obtain a free download of the software before you start the tutorial.

- Diseases and Conditions**
  - [Abdominal Aortic Aneurysm](#)
  - [Acne](#)
  - [Allergies to House Dust Mites](#)
  - [Alopecia](#)
  - [Amyotrophic Lateral Sclerosis \(ALS\)](#)
  - [Angina](#)
  - [Anthrax](#)
  - [Asthma](#)
  - [Arrhythmias](#)
  - [Arthritis](#)
  - [Atrial Fibrillation](#)
  - [Back Pain](#)
  - [Brain Cancer](#)
  - [Bell's Palsy](#)
  - [Breast Cancer](#)
  - [Burns](#)
- Tests and Diagnostic Procedures**
  - [Barium Enema](#)
  - [Bone Densitometry](#)
  - [Breast Lump - Biopsy](#)
  - [Colonoscopy](#)
  - [Coloscopy](#)
  - [Coronary Angiography and Angioplasty](#)
  - [CT Scan \(CAT Scan\)](#)
  - [Cystoscopy](#)
  - [Diagnostic Laparoscopy](#)
  - [Echocardiogram](#)
  - [Echocardiography Stress Test](#)
  - [Intravenous Pyelogram \(IVP\)](#)
  - [Knee Arthroscopy](#)
  - [Mammogram](#)
  - [MRI](#)
  - [Myelogram](#)

Start Messenger Windows Explorer Internet Explorer

### X-Plain Online

Account	Edit	Specialty	Modules	Offline	Promotions	Views	Tools
Path: root			+	Create Pin			
+			Addiction Medicine	Select Favorites List			
+			Advance Directives	Select Frequently Used			
+			Alternative Medicine	Module Updates			
+			Anesthesia	Account Modifications			
+			Angiography	Manage Offline Files			
+			Audiology	Email Reviewer			
+			Cardiac Rehabilitation	Generate Offline Files			
+			Cardiac Surgery				

```
1 <lesson>
2 <info>
3 <Title>Diabetes &#45; Eye Complications</Title>
4 <Author>Diabetes &#45; Eye Complications</Author>
5 <Published>08/30/2004</Published>
6 <PassScore>60</PassScore>
7 <Language>English</Language>
8 <ModuleID>db019105</ModuleID>
9 <folder>diabetes/db010105</folder>
10 <AutoAdvance></AutoAdvance>
11 <RevDate>11/29/2012</RevDate>
12 </info>
13 <s f="1_0" p="s" t="6" s="Introduction" />
14 <s f="1_1" p="o" t="9" />
15 <s f="1_2" p="o" t="9" />
16 <s f="1_3" p="o" t="9" />
17 <s f="2_1" p="s" t="2" s="How the Eye Works" />
18 <s f="2_2" p="o" t="6" />
19 <s f="2_3" p="o" t="5" />
20 <s f="2_4" p="o" t="7" />
21 <s f="2_5" p="o" t="5" />
```

### Diabetes - Confección de carbohidratos

Introducción

¿Cuáles de los siguientes grupos de alimentos tienen el mayor impacto en el nivel de azúcar en la sangre?

1 Carbohidratos.

2 Grasas y aceites.

3 Proteínas.

Incorrecto. Los carbohidratos afectan más los niveles de azúcar en la sangre en comparación con las grasas y las proteínas.

Slide 9 of 120

Salir Créditos Volumen Repetir

accionado por la X-Plain

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### Omusujja gw'ensiri

Omusujja gw'ensiri: kye ki?

Obubonero n'obuganga

Okuzibya

Mubufunze

Fuluma

English

Omukko 1 ogwa 28

EDOBOZI

TANDIKA

# MessageMedia OPT\_OUT report generator

## Instructions

Generate a Message Media csv export  
Drop the csv file in csv subfolder  
Run the Python script below  
The generated CSV file will be stored in 'Message Media/Reports' folder

**Subject : Messagemedia OPT\_OUT for 2025-01-12\_to\_2025-01-20**

Hello

Here is the messagemedia OPT\_OUT report.

```
In [1]: import pandas as pd
import os
import glob
import datetime as dt
import re

SRC_FILE = sorted( filter( os.path.isfile, glob.glob('csv/*.csv')))[0]
print(SRC_FILE)
rep = pd.read_csv( SRC_FILE , chunksize=10000,
                  low_memory=False ,
                  index_col=False ,
                  header=0 ,
                  usecols=[
                      'source_address',
                      'destination_address',
                      'action',
                      'timestamp_localtime',
                      'content',
                      'timestamp',
                      'account_name'
                  ] ,
                  dtype="string"
                )

df = pd.concat(
    (x.query("action in ['OPT_OUT','OPT_IN'] ") for x in rep),
    ignore_index=True
)
FN = df['timestamp'].str[0:10].str.strip().min() + '_'
FN += df['timestamp'].str[0:10].str.strip().max()

RepPath = "file:///  /Reports/"
RepPath += FN + ".csv"
print( RepPath )

df['source_address'] = df['source_address'].str[1:]
df = df.query(" `account_name` == '  ' ")

dfDupe = df[df.duplicated(subset=['source_address'], keep=False)]
dfDupe = dfDupe.sort_values(
    'timestamp',
```

```

        ascending=False).drop_duplicates(['source_address'] ,
        keep='first'
    )

dfDupe = dfDupe.reset_index(drop=True)
dfDupe = dfDupe.drop( dfDupe.query(" `action`=='OPT_OUT' ").index)

print('')
print('Duplicates')
print('OPT_IN -----')

if dfDupe.empty:
    print('No duplicates')
else:
    #print(dfDupe.to_markdown())
    dfDupe.to_csv( 'output/' + FN + ".csv" , mode='a')

df = df.sort_values(
    ['timestamp','source_address'],
    ascending=[False, True]
).drop_duplicates(['source_address'])

a_index = df.set_index('source_address').index
b_index = dfDupe.set_index('source_address').index

mask = ~a_index.isin(b_index)
df = df.loc[mask]
df = df.sort_values('timestamp', ascending=True )
df = df.reset_index(drop=True)
df = df.drop(['destination_address'], axis=1)
df = df.drop(['timestamp'], axis=1)

print('')
print('Result -----')
df.to_csv( 'output/' + FN + ".csv" , index=False )
df.to_csv(
    "{ }".format(FN) + ".csv" ,
    index=False
)
#print(df.to_markdown())

csv\2025-02-10_02-08-16_detail_all.csv
file:///S:{ }reports/2025-02-02_2025-02-08.csv

```

Duplicates

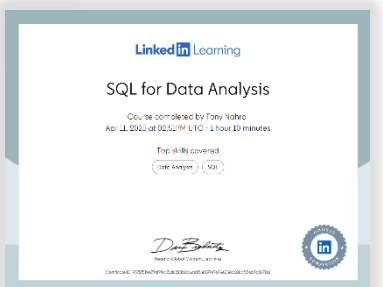
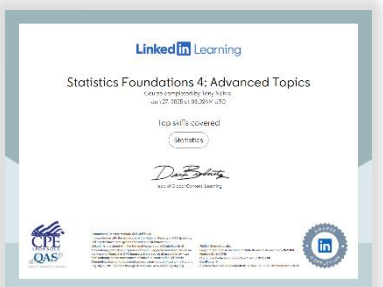
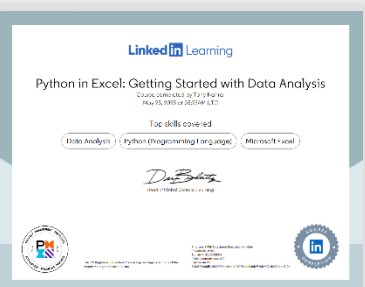
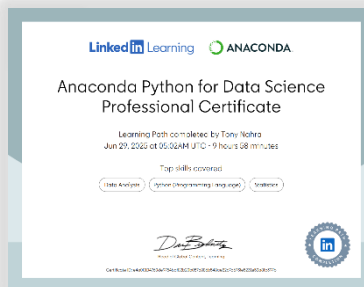
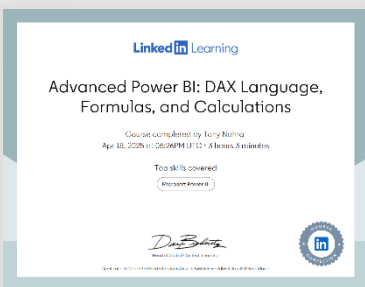
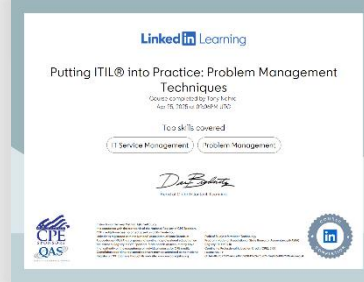
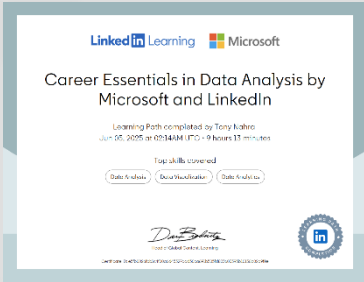
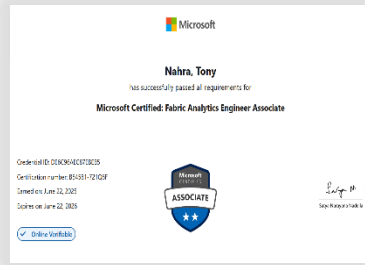
OPT\_IN -----

Result -----

In [ ]:



# Certification



More certificates at <https://tonynahra.github.io/cv/cert>