# **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* 

### <u>Application development and administration of various systems:</u>

- 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

Last Update: 07/28/2025

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

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Epic Systems	<b>EpicCare Inpatient Clinical Documentation</b>	Oct 2024
Epic Systems	Data Courier Mover Badge	Nov 2024
Microsoft	Fabric Analytics Engineer Associate	Jun 2025
Oracle University	<b>Certified Data Science Professional</b>	July 2025
Oracle University	Al vector search certified professional	May 2025
Oracle University	APEX cloud developer certified professional	Jun 2025

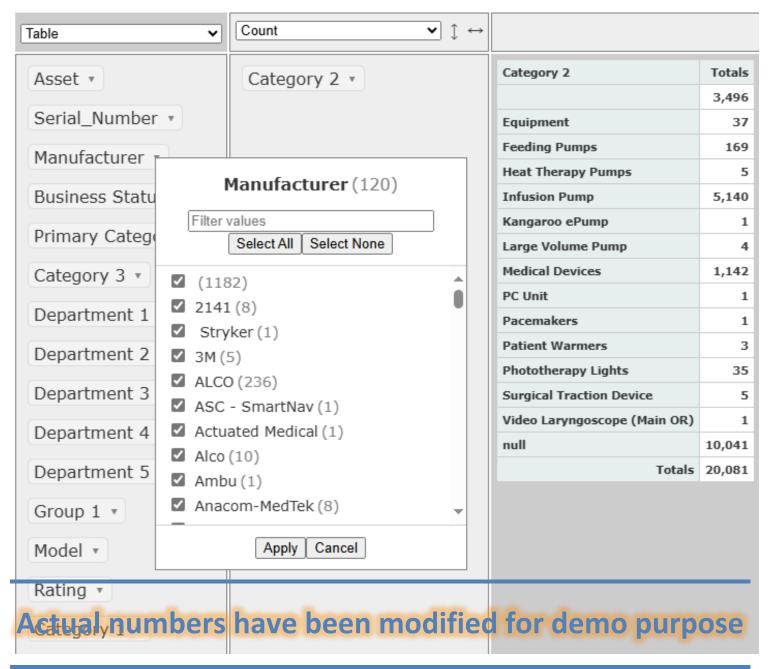
### **EDUCATION**

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

More details and sample projects at <a href="https://tonynahra.github.io/cv">https://tonynahra.github.io/cv</a>

# Screenshots of sample projects that I designed and developed

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



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

A DrillDown RTLS report using the LastSeen field to analyze who has not been using their RTLS tag per Dept. / Building def DateRange12Month(X): 28 29 if X > 180 and X < 365 : Python Pandas return "X" 30 code used to 31 else: return "" 32 generate the 33 def DateRangeInYear(X): PIVOT below if X > 365 : 34 35 return "X" else: 36 37 return "" 38 39 GRP=dataset.groupby(['Department']).agg(Cnt=('TagID',len),Last=('LastDate',np.max)) GRP["LastSeen"] = ( dt.datetime.now() - GRP['Last'] ).dt.days 40 41 GRP["Within\_1\_month"] = GRP['LastSeen'].apply(DateRange1Month) GRP["Within\_3\_months"] = GRP['LastSeen'].apply(DateRange3Month) 42 GRP["Within\_year"] = GRP['LastSeen'].apply(DateRange12Month) 43 GRP["more\_than\_year"] = GRP['LastSeen'].apply(DateRangeInYear) GRP = GRP.drop( ['Last'] , axis=1) 45 **∨** ↑ ↔ Last\_seen\_within\_1\_month • Last seen within 3 Table Count numbers Last\_seen\_within\_1\_month StaffName \* Department \* Last\_seen\_within\_3\_months are clickable to TagID ▼ Last\_seen\_within\_year х Totals drill into TagIDs Last\_seen\_more\_than\_year Location \* х Department LastDate \* 14 14 56 171 11PW 1 4 LastSeen \* 2JCP 21PF 3 3 2JPW 10 13 2RCP 1 Name \* Unit ▼ Count **v** ↑ ↔ AT v Buildina \* --D -M- -MD 1-D 1MD Totals Ambulatory Clinics 68 449 135 709 Anesthesia 200 Voalte PIVOT Capital Manag 3 Cardiothoracic Surgery report for who 13 24 is using which Carver College of Medicine (CCOM) 11 Center for Disabilities and Development 74 14 format: 149 203 Central Sterilizing Services 48 Clinical Quality, Safety & Performance Improvement 16 26 1: VoalteOne M: Mobile Compliance Dermatology 15 D: Desktop 71 230 **Emergency Medicine** 142 **Engineering Services** 40 53 **Environmental Services** 211 225 Family Medicine 39 45 93 Food & Nutrition Services 3 45 149 246 63 21 96 53 71 241 113 194 Heart and Vascular Center (HVC) 31 21 269 Holden Comprehensive Cancer Center (HCCC) **Hospital Administration** Hospital Dentistry 1,355 Actual numbers have been modified 24 52

Iowa River Landing

Joint Office of Patient Financial Services

374

12

488

106

### 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
                                                                                                                     Execute > = ✓ $5 字目 27 項 (1) 图 (1) 图 2 字字 56 ;
            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._
            INNER JOIN dbo.Specialties ON dbo.Module_Specialty.Specialty = dbo.Specialties
                                                                                                                                          Object: StoredProcedure [dbo].[CP Client LM] Script Date: 02/15/2016 19:46:59 *******/
                                                                                                                                     SET ANSI NULLS OFF
                                                                                                                                     SET QUOTED IDENTIFIER ON
               dbo.Module Info.ModuleCODE = @FiltK
                                                                                                                                     ALTER PROCEDURE [dbo] . [CP Client LM]
            and (dbo.Module_Info.Status <> 3) else if @SpDest =-2
                                                                                                                                     BCID as int
        SELECT
                                                                                                                                     BUID as int
                                                                                                                                     @SP as int,
            TOP 100 PERCENT M.ModuleID AS ModuleID,
           M.ModuleCODE,
                                                                                                                      ath PubDate
                                                                                                                                     BKW as varchar (50)
           M. Lang.
           1 AS Licensed.
            Specialties 1. SPName AS Specialty,
                                                                                                                                     Declare #Imitate int
                                                                                                                     sting
            dbo.Module_Language.[Language],
                                                                                                                                      select @Imitate=ImitateID from Client_Info where ClientID=@CID
           M.Name AS Module_Title,
                                                                                                                      Imitate
                                                                                                                     MT.M_Type AS asType,
                                                                                                                                     if @Imitate is NUL1
            dbo.LicensedModules.ClientID,
                                                                                                                                     set @Imitate = @CID
            Specialties_1.SP AS DestSpecialty
                                                                                                                                     if @SP = 0
         FROM
            dbo.Module_Info M
                                                                                                                                    SELECT DISTINCT
                                                                                                                                                    dbo.LicensedModules.ModuleID, dbo.Module_Info.ModuleCODE, ISNULL(dbo.LicensedModules_Other.CustomWame, dbo.Module_Info.Name
            {\tt INNER\ JOIN\ dbo.Module\_Language\ ON\ M.Lang\ =\ dbo.Module\_Language.Indx}
            INNER JOIN dbo.Module_Type MT ON M.Type = MT.Indx
                                                                                                                                                                  Log_Assign
            INNER JOIN dbo.Specialties Spe ON M.Specialty = Spe.SP
                                                                                                                                                        WHERE
                                                                                                                                                               Log_Assign. N = LicensedModules.ModuleID AND Log_Assign.C = @CID AND Log_Assign.U = @CID) AS Licensed
            INNER JOIN dbo.LicensedModules ON M.ModuleID = dbo.LicensedModules.ModuleID
            INNER JOIN dbo.Specialties Specialties_1 ON dbo.LicensedModules.Specialty =
                                                                                                                                                              TOP 1 Indx
         WHERE
                                                                                                                                                                  LicensedModules AS SUBLM
                                                                                                                                                        FROM
                                                                                                                     sct SortedPublished 2
                                                                                                                                                        WHERE
                                                                                                                                                               SUBLM.ModuleID = LicensedModules.ModuleID AND SUBLM.ClientID = @Imitate ) &S LMInds
              M.Type = ISNULL(@Type, M.Type)
                                                                                                                      ex NoDup
                                                                                                                                     FROM
                                                                                                                                              dbo.LicensedModules INNER J
                                                                                                                                                    dbo. Module Info ON dbo. Licensed Modules. ModuleID = dbo. Module Info. ModuleID LEFT OUT
                                                                                                                                          doo.LicensedNodules Other ON doo.LicensedNodules.Indx = doo.LicensedNodules Other.LM Indx (doo.Nodule Info.Status=2) kmd (doo.Nodule Info.Lang = issull(@lang, doo.Nodule Info.Lang)) and (doo.LicensedNodules.Client
            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,
Microso
               SELECT
 New Query | 🔟 | 🝱 |
                              XPOL_03-19-2015
                                               → 7 ×
                                                             SQLQuery6.sql ...istrator (63))* SQLQuery5.sql ...istrator (62))* SQLQuery4.sql -...nistrator (60)) SQLQuery3.sql -...nistrator (59)) SQLQuery2.sql -...nistrator (57)) SQLQuery2.sql -...nistrator (57))
                                                                    @SID int,
@ModuleID int,
Connect * 🛂 眼 🔳 🔻 🌋

    System Stored Procedures
    Image: System Stored Procedures
    Image: System Stored Procedures

                                                       -
                                                                    @Logo tinyint,
              @LogoT varchar(10),
                                                                    ACnt 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
              insert user_info (ClientID) values (@CID)
                                                               Select @UID=@@Identity

    dbo.CP_Admin_Module_Specialty_ListModules
    dbo.CP_Admin_Module_Specialty_ListSpecialty

                                                               select @ModuleCode = Modulecode from Module Info where ModuleID =@ModuleID
                                                                select BIDN = IDN, BNAME=NAME, BSaveMethod=SaveMethod, BMedia=Media, BImitateID = ImitateID from client Info where clientid=BCID

    □ dbo.CP Admin Update Module Tracker

    doo.CP_Admini_Opdate_indu
    doo.CP_BO_HCA_ToUpdate
    doo.CP_Client_Add_UID
    doo.CP_Client_Assign_Add

                                                                select @AutoUpdate=Auto Update from client Info where clientid=@ImitateID

    dbo.CP_Client_Assign_Del
    sign dbo.CP_Client_Get_UID
    sign dbo.CP_Client_Get_UID
    sign dbo.CP_Client_Kiosk_UNPW

                                                               select @ModuleCode = Modulecode from Module Info where ModuleID =@ModuleID
                                                              if @AutoUpdate = 1
              begin
                                                                    set @ShortCode = substring( @ModuleCode ,
                                                                    select @LastVer = LastVer from Module_UniqueCode where MUC-@ShortCode
set @ModuleCode = @ShortCode + @LastVer
select @ModuleID = moduleid from module_info where modulecode = @modulecode

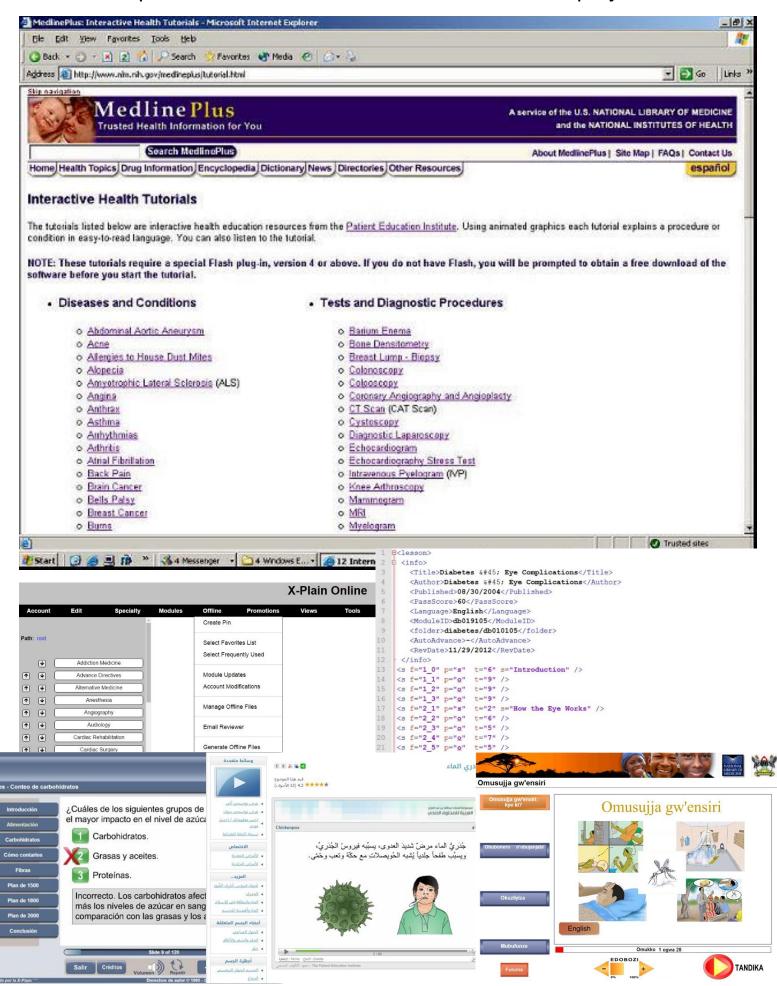
    dbo.CP_Client_Un_Direct_sortean
    dbo.CP_Client_LM_Index
    dbo.CP_Client_LM_Index_NoDup
    dbo.CP_Client_Login_Direct
    dbo.CP_Client_Login_Direct
    dbo.CP_Client_Login_Direct
    dbo.CP_Client_ModuleDelisted
                                                               set @InterfaceEnd =
                                                               select @InterfaceEnd=InterfaceEnd from Client_Logins where ClientID=@CID and priv=2
                                                               if @InterfaceEnd = NULL
               set @EndURL = 'X'
              dbo.CP_Client_PrintDirect
dbo.CP_Client_PrintDirect_AutoRoll
dbo.CP_Client_PrintDirect_AutoRoll
dbo.CP_Client_PRTDirect_All
                                                                   select @EndURL=Page from op Interface where Indx=@InterfaceEnd
```

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

```
SELECT
  TOP 100 PERCENT Specialties. SPName AS Specialty,
  SUM( CASE WHEN module info.Lang = 1 THEN 1 ELSE 0 END ) AS English,
  SUM( CASE WHEN module_info.Lang = 2 THEN 1 ELSE 0 END ) AS Spanish,
  SUM( CASE WHEN module_info.Lang = 3 THEN 1 ELSE 0 END ) AS Arabic,
  SUM( CASE WHEN module_info.Lang = 4 THEN 1 ELSE 0 END ) AS Vietnamese
FROM
  LicensedModules
  INNER JOIN Module Info ON LicensedModules.ModuleID = Module Info.ModuleID
  INNER JOIN Specialties ON LicensedModules.Specialty = Specialties.SP
  INNER JOIN Module_Language ON Module_Info.Lang = Module_Language.Indx
WHERE LicensedModules.ClientID = 91
GROUP BY
  Specialties.SPName,
  Specialties.Type,
  Module_Info.Status
  Specialties.Type = 1 AND Module_Info.Status = 2
ORDER BY
Specialty
```

```
ALTER PROCEDURE [CP_Survey_Analysis]
@ClientID smallint,
@ModID varchar(10),
@d1 smalldatetime,
@d2 smalldatetime AS
 TOP 100 PERCENT Activity_Responses.QuestionNumber,
 Activity_Responses.UserResponse,
 COUNT(Activity_Responses.Indx) AS cnt,
  Module_Questions.Text AS Question,
 Module_Answers.Text AS Reply,
 Log_Activity.ClientID
Activity_Responses
 INNER JOIN Log_Activity ON Activity_Responses.ActivityIndex = Log_Activity.Indx
 INNER JOIN Module_Info ON Log_Activity.ModuleID = Module_Info.ModuleID
 INNER JOIN Module_Questions ON Activity_Responses.QuestionNumber = Module_Questions.Qcode
 AND Module_Info.ModuleCODE = Module_Questions.ModuleCode
  INNER JOIN Module_Answers ON Activity_Responses.QuestionNumber = Module_Answers.Qcode
  AND Activity_Responses.UserResponse = Module_Answers.Answer
  AND Module_Info.ModuleCODE = Module_Answers.ModuleCode
Activity_Responses.DT BETWEEN @d1 AND @d2
GROUP BY
 Activity_Responses.QuestionNumber,
 Activity_Responses.UserResponse,
 Module_Info.ModuleCODE,
  Module_Questions.Text,
 Module Answers.Text,
 Log_Activity.ClientID
Log_Activity.ClientID = @ClientID
 AND Module_Info.ModuleCODE = @ModID
 Activity_Responses.QuestionNumber,
  Activity_Responses.UserResponse
```

### Database export to XML for a MedlinePlus static website project



# 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(
                                                            FN + ".csv",
           index=False
           )
        #print(df.to_markdown())
       csv\2025-02-10 02-08-16 detail all.csv
                                                              eports/2025-02-02_2025-02-
       file:///S
       08.csv
       Duplicates
In [ ]:
```

## Certification















































