

Sunrise & Sunset Automation

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Objective

Automating the extraction of the Sunrise and Sunset data from a website and alerting the user if the daylength exceeds a certain number



Tools Used

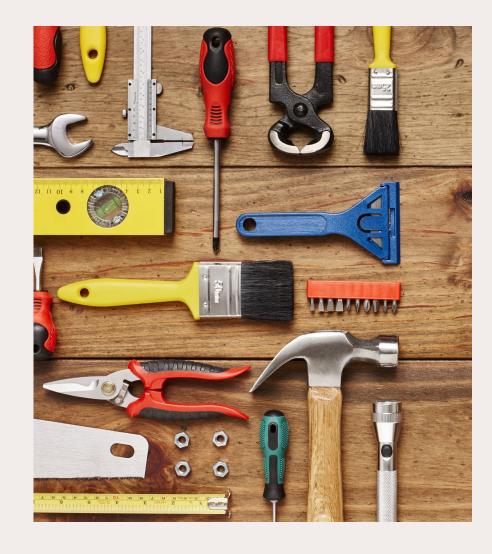
- Power Automate Desktop

- Excel 🛂
- Microsoft SQL Server Studio 2019



- Google Chrome
- Power BI





Pipeline

Web scraping the data using Power Automate



Data Preprocessing



Calculate the Daylength

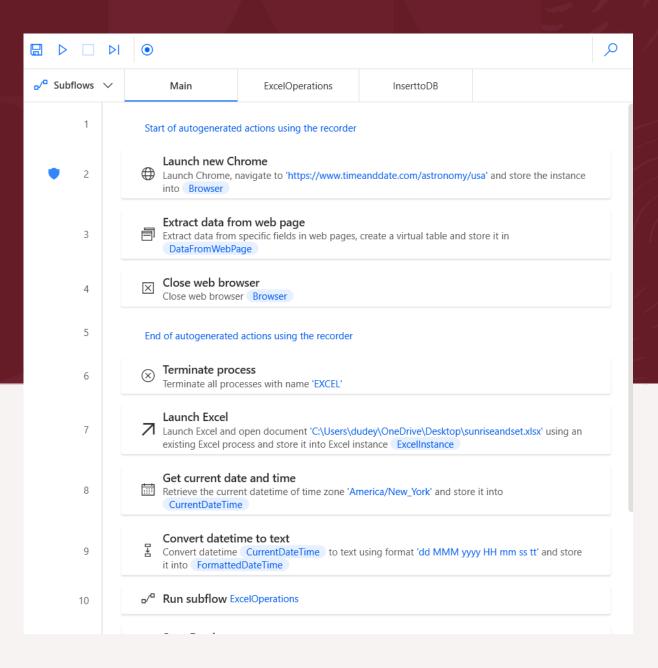
Send Alerts based on the condition



Visualizing Data using Powe BI



Load Data into SQL



Power Automate Code



Calendar ~	Weather ~	Sun & Moon v		
Country:	United S	tates		
Long Name:	United S	tates of America		
Abbreviations:	US, USA	US, USA		
Capital:	Washing	ton DC		
Time Zones:	7 (Main (Country)		
Total Time Zon	es: 12 (with	dependencies)		

Dial Code:



	Segment
	Create A
1	Free
	Account

Today's top brands use Segment to collect, clean, and activate their customer data.

Twilio Segment

Adak (AK)	↑ 8:56 am	↓ 8:11 pm	Harrisburg (PA)	† 7:09 am	↓ 6:41 pm	Philadelphia (PA)	↑ 7:01 am	↓ 6:34 pm
Albany (NY)	↑ 6:57 am	↓ 6:27 pm	Hartford (CT)	↑ 6:53 am	↓ 6:23 pm	Phoenix (AZ)	↑ 6:26 am	↓ 6:05 pm
Albuquerque (NM)	↑ 7:05 am	↓ 6:43 pm	Helena (MT)	† 7:33 am	↓ 6:57 pm	Pierre (SD)	↑ 7:45 am	↓ 7:12 pm
Ames (IA)	↑ 7:17 am	↓ 6:47 pm	Honolulu (HI)	↑ 6:24 am	↓ 6:14 pm	Portland (OR)	↑ 7:15 am	↓ 6:41 pm
Anchorage (AK)	↑ 8:19 am	↓ 7:14 pm	Houston (TX)	↑ 7:17 am	↓ 7:00 pm	Raleigh (NC)	↑ 7:13 am	↓ 6:51 pm
Annapolis (MD)	↑ 7:06 am	↓ 6:40 pm	Indianapolis (IN)	↑ 7:45 am	↓ 7:18 pm	Richmond (VA)	↑ 7:09 am	↓ 6:45 pm
Atlanta (GA)	↑ 7:35 am	↓ 7:15 pm	Jackson (MS)	↑ 6:58 am	↓ 6:38 pm	Sacramento (CA)	↑ 7:06 am	↓ 6:40 pm
Augusta (ME)	↑ 6:42 am	↓ 6:10 pm	Jefferson City (MO)	↑ 7:09 am	↓ 6:43 pm	Salem (OR)	↑ 7:16 am	↓ 6:43 pm
Austin (TX)	↑ 7:27 am	↓ 7:10 pm	Juneau (AK)	↑ 7:13 am	↓ 6:16 pm	Salt Lake City (UT)	↑ 7:29 am	↓ 7:01 pm
Baltimore (MD)	↑ 7:07 am	↓ 6:41 pm	Kansas City (MO)	↑ 7:19 am	↓ 6:52 pm	San Diego (CA)	↑ 6:46 am	↓ 6:26 pm
Baton Rouge (LA)	↑ 7:01 am	↓ 6:43 pm	Lansing (MI)	↑ 7:41 am	↓ 7:10 pm	San Francisco (CA)	↑ 7:09 am	↓ 6:44 pm
Billings (MT)	↑ 7:18 am	↓ 6:44 pm	Las Vegas (NV)	↑ 6:40 am	↓ 6:16 pm	San Jose (CA)	↑ 7:07 am	↓ 6:43 pm
Bismarck (ND)	↑ 7:48 am	↓ 7:12 pm	Lincoln (NE)	↑ 7:28 am	↓ 7:00 pm	Santa Fe (NM)	↑ 7:02 am	↓ 6:40 pm
Boise (ID)	↑ 7:48 am	↓ 7:16 pm	Little Rock (AR)	↑ 7:07 am	↓ 6:46 pm	Seattle (WA)	↑ 7:15 am	↓ 6:38 pm
Boston (MA)	↑ 6:46 am	↓ 6:17 pm	Los Angeles (CA)	↑ 6:51 am	↓ 6:30 pm	Sioux Falls (SD)	↑ 7:30 am	↓ 6:58 pm
Carson City (NV)	↑ 7:00 am	↓ 6:33 pm	Louisville (KY)	↑ 7:43 am	↓ 7:18 pm	Springfield (IL)	↑ 6:59 am	↓ 6:32 pm
Charleston (WV)	↑ 7:26 am	↓ 7:01 pm	Madison (WI)	† 7:00 am	↓ 6:29 pm	St. Joseph (MO)	↑ 7:20 am	↓ 6:53 pm
Chicago (IL)	↑ 6:52 am	↓ 6:23 pm	Miami (FL)	↑ 7:15 am	↓ 7:02 pm	St. Louis (MO)	↑ 7:01 am	↓ 6:35 pm
Columbia (SC)	↑ 7:22 am	↓ 7:01 pm	Milwaukee (WI)	↑ 6:54 am	↓ 6:23 pm	St. Paul (MN)	↑7:17 am	↓ 6:43 pm
Columbia (MO)	↑ 7:10 am	↓ 6:44 pm	Minneapolis (MN)	↑ 7:17 am	↓ 6:44 pm	Tallahassee (FL)	↑ 7:33 am	↓ 7:16 pm
Concord (NH)	↑ 6:49 am	↓ 6:18 pm	Montgomery (AL)	↑ 6:42 am	↓ 6:23 pm	Topeka (KS)	↑ 7:23 am	↓ 6:57 pm
Dallas (TX)	↑ 7:24 am	↓ 7:05 pm	Montpelier (VT)	↑ 6:54 am	↓ 6:21 pm	Trenton (NJ)	↑ 7:00 am	↓ 6:33 pm
Denver (CO)	↑ 7:01 am	↓ 6:34 pm	Nashville (TN)	↑ 6:46 am	↓ 6:23 pm	Unalaska (AK)	↑ 9:17 am	↓ 8:29 pm
Des Moines (IA)	↑ 7:16 am	↓ 6:47 pm	New Orleans (LA)	↑ 6:56 am	↓ 6:39 pm	Washington DC (DC)	↑ 7:08 am	↓ 6:42 pm
Detroit (MI)	↑ 7:34 am	↓ 7:04 pm	New York (NY)	↑ 6:57 am	↓ 6:29 pm	York (PA)	↑ 7:08 am	↓ 6:41 pm
Fairbanks (AK)	↑ 8:16 am	↓ 6:59 pm	Oklahoma City (OK)	↑ 7:29 am	↓ 7:06 pm			
Frankfort (KY)	↑ 7:39 am	7:14 pm	Olympia (WA)	↑ 7:17 am	⊥ 6:41 pm			



Website

⊞R	⊞ Results						
	StateName	Sunrisetime	Sunsettime	DateandTime	Daylength		
1	Adak (AK)	08:56:00.0000000	20:11:00.0000000	06 Oct 2022 12 38 48 PM	11.2		
2	Albany (NY)	06:57:00.0000000	18:27:00.0000000	06 Oct 2022 12 38 48 PM	11.5		
3	Albuquerque (NM)	07:05:00.0000000	18:43:00.0000000	06 Oct 2022 12 38 48 PM	11.6		
4	Ames (IA)	07:17:00.0000000	18:47:00.0000000	06 Oct 2022 12 38 48 PM	11.5		
5	Anchorage (AK)	08:19:00.0000000	19:14:00.0000000	06 Oct 2022 12 38 48 PM	10.9		
6	Annapolis (MD)	07:06:00.0000000	18:40:00.0000000	06 Oct 2022 12 38 48 PM	11.6		
7	Atlanta (GA)	07:35:00.0000000	19:15:00.0000000	06 Oct 2022 12 38 48 PM	11.7		
8	Augusta (ME)	06:42:00.0000000	18:10:00.0000000	06 Oct 2022 12 38 48 PM	11.5		
9	Austin (TX)	07:27:00.0000000	19:10:00.0000000	06 Oct 2022 12 38 48 PM	11.7		
10	Baltimore (MD)	07:07:00.0000000	18:41:00.0000000	06 Oct 2022 12 38 48 PM	11.6		
11	Baton Rouge (LA)	07:01:00.0000000	18:43:00.0000000	06 Oct 2022 12 38 48 PM	11.7		
12	Billings (MT)	07:18:00.0000000	18:44:00.0000000	06 Oct 2022 12 38 48 PM	11.4		
13	Bismarck (ND)	07:48:00.0000000	19:12:00.0000000	06 Oct 2022 12 38 48 PM	11.4		
14	Boise (ID)	07:48:00.0000000	19:16:00.0000000	06 Oct 2022 12 38 48 PM	11.5		
15	Boston (MA)	06:46:00.0000000	18:17:00.0000000	06 Oct 2022 12 38 48 PM	11.5		
16	Carson City (NV)	07:00:00.0000000	18:33:00.0000000	06 Oct 2022 12 38 48 PM	11.6		
17	Charleston (WV)	07:26:00.0000000	19:01:00.0000000	06 Oct 2022 12 38 48 PM	11.6		

SQL Database

* D 7 E ...

Sunrise and Sunset

Atlanta (GA)

Daylength 11.70

7:35:00 AM 7:35:00 AM

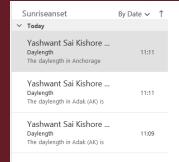
StateName, DateandTime ✓ □ Adak (AK)

- ✓ □ Albany (NY) ✓ □ Albuquerque (NM)
- ✓ ☐ Ames (IA)
- ✓ ☐ Anchorage (AK)
- ✓ □ Annapolis (MD)
- ✓ Atlanta (GA)
- ✓ □ Augusta (ME)
- ✓ □ Austin (TX)
- ∨ □ Baltimore (MD)
- ✓ □ Baton Rouge (LA)
- ✓ □ Billings (MT)
- ✓ □ Bismarck (ND)
- ∨ □ Boise (ID)
- ✓ □ Boston (MA)
- ✓ □ Carson City (NV)
- ∨ □ Charleston (WV)
- ✓ ☐ Chicago (IL)
- ✓ □ Columbia (MO)

Powe BI **Dashboard**

DateandTime

- ☐ 03 Oct 2022 05 30 00 PM
- 04 Oct 2022 05 30 00 AM
- ☐ 05 Oct 2022 05 30 00 AM
- ☐ 06 Oct 2022 10 41 00 AM



Daylength



Sun 09-10-2022 11:11

← Reply ← Reply All → Forward ii ····

The daylength in Anchorage (AK) is going to be 10.6

The Projected Sunrise: 8:27 am The Projected Sunset: 7:05 pm

Link to Power BI Dashboard:

https://app.powerbi.com/groups/me/reports/7c50dba9-ccbe-46b9-8b3b-a901babc566a/ReportSection

From Power Automate Desktop Do not Reply to this mail

Outlook Alerts

Thank You

