

Developer: Gilad Spitzer (devgilad@gmail.com)

Project: Bay Area Tee Time Notifier

Recipient: Chris Yi (cyl106@gmail.com)

Bay Area Tee-Time Notifier



- Description: An automated tool to retrieve a google sheet containing data about golf courses that Chris is interested in playing at and query their websites for available tee times and send an email to Chris about newly available options (No email is sent if there are no new listings found that have not already been included in a previous email).
- Error Handling: If an error occurs while the program is running, an email will be sent to bayareateetimes@gmail.com. Please reach out to me and I'll happily debug it and get things set straight again.
- If you are interested, I uploaded the code to the google drive of bayareateetimes@gmail.com.
 - You are unable to see the code within the AWS Lambda Function because its too large of a .zip to unpack.
 - The TeeTimeNotifier.py file invokes the function and uses the models from within the models.py function to create objects that store and process the data for each course.
 - If you ever wanted to make any changes to the code, you would download the entire folder, edit one of those two files, re-compress all of the files (there should be 74), and then re-upload the .zip to the AWS Lambda Function (Click on the function > Actions > Upload .zip).
 - The rest of the files are dependencies of the code that AWS requires you to manually incorporate into the project.
- If you are interested in changing the frequency of the program's invocations, navigate to the Lambda function.
 - Click add trigger and then select EventBridge. Use the Schedule expression option and then type in the rate(...) or cron(...) you want to add. You can look up cron generators on google to help out with that.
 - Don't forget to edit or delete the existing rule if you want to change this.
- If you need to change the email address to which the tee time notifications are being sent, navigate to the AWS Lambda function and scroll to environmental variables and change the TOADDR value to whatever email you prefer.
- If you need to change/delete the text updates, open SNS (Simple Notification Service) in AWS and navigate to the New_TEE_TIMES topic and delete the subscription for your phone number
- Billing

- The first year of AWS Lambda usage is free for new accounts.
- After that I have estimated that the program will cost you around \$12 per year. I have set up billing alerts in your dashboard to alert you if something extremely unexpected happens and the spending exceeds 5 dollars per month. Let me know if this happens and we can debug it.
 - It takes between 45-60 seconds to run.
 - It runs twice per day (as configured right now)
 - == 262,800 seconds per year
 - It costs \$0.000048958 to run per second after the free tier year is up
 - $0.000048958 * 262,800 == 12.9$
 - You can also use this calculator:
 - <https://dashbird.io/lambda-cost-calculator/>
 - Around 360 invocations (12 * 30) per month
 - Memory: 3008
 - Time: 60 seconds = 60000ms
- Google Sheet
 - Do not change the order of the columns. This will mess things up. You can change the order of the rows though. This will change the order that the courses show up in the email.
 - You may delete a course at any time. To add a course, copy a corresponding row with the same course type and edit the data accordingly
 - Do not leave any cell empty. If it does not need to be filled then put a 0
 - Confusing Columns
 - F
 - You can specify the CourseID (used by EzGolf and quick18)
 - I put a comment on some of them to show you the different options but will also demonstrate how to figure this out for yourself when adding course (Chrome Inspect Element > Network)
 - H
 - Some EZGolf course websites allow you to specify the price category. Put 0 if you don't care or you can inspect element on the website (on the checkbox) and find out what the number is
 - For Baylands there are multiple columns so the number represents which column to use (1 is the most left)
 - I & J
 - Only used by ForeUp -- when adding a course use the (Chrome Inspect Element > Network) to figure this out
 - K
 - TOD is used by quick18 and foreup. I have loaded the appropriate options for each one using the validation
 - L & M
 - Start and End times are used by EZGOLF
 - U & V

- The U Column contains a list of reservation IDs so that the same tee time is never included in more than one email.
- The V Column contains the time that it last searched for reservations for that course
- If you ever want to see all reservations, you can set the value to all of the rows in the U column to []. Never set it to empty. This will clear all prior knowledge and send you all the tee times.

TODO:

- Change Email to Chris's
- Change Phone Number to Chris's
- Show Chris Inspect Element for adding courses
- Days in for Half Moon Bay
- Demonstrate