

Assignment 2 Part B

100 pts

This assignment is the second part of a three-part assignment that will teach you about Web service abuse. For this assignment, you will need to overcome additional anti-spam defenses to post spam to a bulletin board Web site we operate, and which we give you official permission to spam.

1 Target Web Service

Bord is a Web site that allows anyone to post comments on a publicly-visible bulletin board. Each of you will be attacking your own instance of the Bord site at:

`http://bord.ece498kl-fa2018.org/netid/v4`

where *netid* is your Net ID. Note that this is a separate partition of the Bord site from Assignment 2A.

2 Problem 4: Account Signup Limits

As in Problems 1–3, you must post 1,000 messages promoting your Web site from Assignment 1 to your instance of Bord at `http://bord.ece498kl-fa2018.org/netid/v4/` (where *netid* is your NetID). This version of Bord has all of the anti-spam measures of the previous versions, as well as a new defense: it limits the number of *new* accounts to 5 per day for each /24 subnet block.¹ Fortunately for you, there is a bug in version 4 of Bord that left an old backup of the password database exposed to the public at:

`http://bord.ece498kl-fa2018.org/netid/v4/passwords.txt`

where *netid* is your Net ID. You know that Bord does not store the user password in the database in the clear; instead, it stores the hexadecimal ASCII representation of the MD5 hash value of the string

`http://bord.ece498kl-fa2018.org/netid/v4/`

concatenated with the user's password. For example, if the Bord instance for NetID `klevchen` had a user named `mbryce` using the classic password `123456`, the corresponding line in the password database would be:

`mbryce,dfcc15e1d0815e04d22a7a90960af2b2`

where `dfcc15e1d0815e04d22a7a90960af2b2` is the hexadecimal representation of the MD5 hash value of the string

`http://bord.ece498kl-fa2018.org/klevchen/v4/123456`

Because Bord does not place any restrictions on passwords, except that they must be no more than 20 characters long, you suspect that many users will choose passwords that are made up of: (a) only digits, (b) only lowercase letters, and (c) lowercase letters followed by some digits. *This problem is worth 100 points.*

¹A /24 subnet block is the range of addresses $X.Y.Z.0 - X.Y.Z.255$ for $X, Y, Z \in \{0, \dots, 255\}$.

3 Submitting Solutions

You do not need to submit anything for this assignment. You will be graded on the contents of your Bord site instances. If you would like to use one or more of your three 24-hour extensions, *you must email the instructor and the TA*; we will then check your site at the end of the extension. You may *not* discuss your solution with other students until three days after the assignment deadline.