

# DD2394 Brute-Force Instructions

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## Setup specification

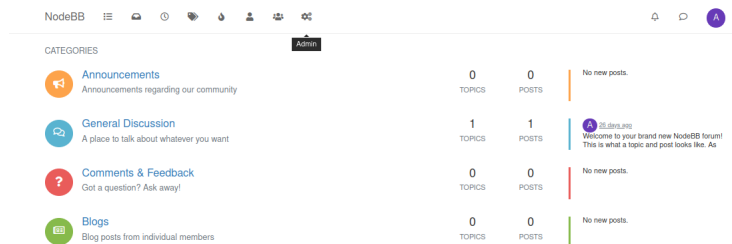
- OS: Ubuntu 22.04
- Database: MongoDB

## Requirements

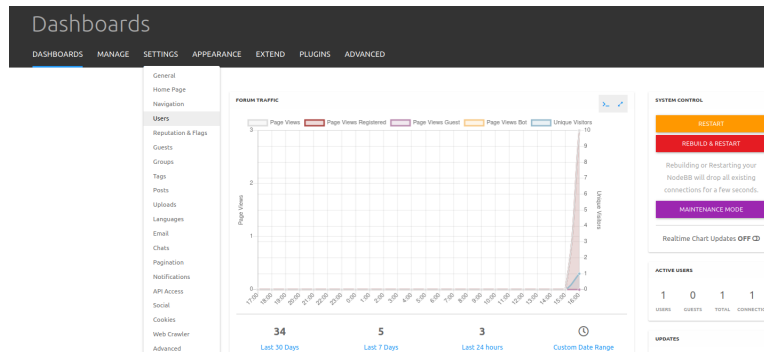
- MongoDB database name "nodebb"
- Password to database "1337"

## Password Strength

- Go to URL 127.0.0.1:4567
- Login as admin
- Click the Admin button (shown in picture below)



- Click on Settings and then on Users (shown in picture below)



- Scroll down to "Minimum Password Length" and type in 8 (shown in picture below)
- Scroll down to "Minimum Password Strength" and select "4 - very unguessable" (shown in picture below)

**Minimum Password Length**

8

**Minimum Password Strength**

4 - very unguessable

## Throttling Login Attempts

- Navigate the NodeBB folder to path `/nodebb/src/user/`
- Open the file `auth.js` with a texteditor
- Change the function `User.auth.logAttempt` from the original code to the one shown below:

```
User.auth.logAttempt = async function (uid, ip) {
  if (!(parseInt(uid, 10) > 0)) {
    return;
  }

  // Username & IP lockout: 10 failed attempts = 24h lockout
  const IPandUIDExists = await db.exists('lockout:${uid}, ip');
  if (IPandUIDExists) {
    throw new Error('[[error:account-locked]]');
  }
}
```

```

const IPandUIDAttempts = await db.increment('loginAttempts:${uid}, ip');

if (IPandUIDAttempts <= 10) {
  return await db.pexpire('loginAttempts:${uid}, ip', 1000 * 60 * 60);
}

// Lock out the account
await db.set('lockout:${uid}, ip', '');
const IPandUIDDuration = 1000 * 60 * 60 * 24; // duration 24h
await db.delete('loginAttempts:${uid}, ip');
await db.pexpire('lockout:${uid}, ip', IPandUIDDuration);
await events.log({
  type: 'account-locked',
  uid: uid,
  ip: ip,
});
throw new Error('[[error:account-locked]]');

// Username logout: 50 failed attempts = 24h logout
const uidExists = await db.exists('lockout:${uid}');
if (uidExists) {
  throw new Error('[[error:account-locked]]');
}

const userAttempts = await db.increment('loginAttempts:${uid}');

if (userAttempts <= 50) {
  return await db.pexpire('loginAttempts:${uid}', 1000 * 60 * 60);
}
// Lock out the account
await db.set('lockout:${uid}', '');
const uidDuration = 1000 * 60 * 60 * 24; // duration 24h
await db.delete('loginAttempts:${uid}');
await db.pexpire('lockout:${uid}', uidDuration);
await events.log({
  type: 'account-locked',
  uid: uid,
  ip: ip,
});
throw new Error('[[error:account-locked]]');

// IP logout: 100 failed attempts = 24h logout
const ipExists = await db.exists('lockout:${ip}');
if (ipExists) {

```

```

        throw new Error ( '[[ error:account-locked ]] ' );
    }
    const ipAttempts = await db.increment ( 'loginAttempts:${ip}' );

    if ( ipAttempts <= 100 ) {
        return await db.pexpire ( 'loginAttempts:${ip}', 1000 * 60 * 60 );
    }
    // Lock out the account
    await db.set ( 'lockout:${ip}', '' );
    const ipDuration = 1000 * 60 * 60 * 24; // duration 24h
    await db.delete ( 'loginAttempts:${ip}' );
    await db.pexpire ( 'lockout:${ip}', ipDuration );
    await events.log ( {
        type: 'account-locked ',
        uid: uid ,
        ip: ip ,
    } );
    throw new Error ( '[[ error:account-locked ]] ' );
};

```