# NodeJS ORM Module Transaction Fix Assembly Specification

## Overview

We are using [node-orm2 module](https://github.com/dresende/node-orm2) in a nodejs application to access PostgreSQL database. Recently we started using transaction and we found that there is a bug in handling transaction in this module when using it in both single connection mode and connection pooling mode. We need them to be addressed properly.

## Scope

*Note: Please read the whole Application Design Specification first. All the details not mentioned in this specification are provided in that document.*

This assembly is responsible for all elements in the class diagrams.

### Provided Code

All the needed changes have already been applied to the orm-txn-bug\node\_modules\orm module.

The newly added transaction argument is added before the callback argument in all affected methods in JS files.

But some improvements are required to make it compatible to the other drivers:

* In Model.js, when the transaction is null, don’t pass the transaction into the Driver’s method. (e.g. you should push all arguments to an array and use the apply JS function to call the Driver’s method, and when the transaction is null, don’t push it into the array).

You need to verify they are implemented correctly. You need to verify that the non-transaction mode is not broken as well.

### Tests

You need to ensure the original tests for the orm module still work.

You should add new tests for the transaction fix.

## Deliverables

* Source Code
* Deployment Guide

## Technology overview

* JavaScript
* [Node.js 0.10.29](http://nodejs.org)
* [pg 2.6.2](https://github.com/brianc/node-postgres)
* [sql-query 0.1.15](https://github.com/dresende/node-sql-query)
* [lodash 2.0.0](https://github.com/lodash/lodash)
* [node-orm2 2.1.3](https://github.com/dresende/node-orm2)
* [enforce 0.1.2](https://github.com/dresende/node-enforce)
* [hat 0.0.3](https://github.com/substack/node-hat)
* [PostgresSQL 9.x](http://www.postgresql.org/)

## Existing Documents

* Class Diagrams
* Sequence Diagrams
* Application Design Specification
* Assembly Specification