Problem

You are designing a web application that manages organizational structure for parent and child companies.

Each company has two properties, they are company name and estimated annual earnings.

There are two types of companies: 1- Main company, 2 - Subsidiary company.

The company can belong only to one company but can have a few child companies.

Requirements

- The application should allow a user to view/add/edit/delete any company.
- Show companies tree
- Solution should have database, backend, frontend. (for example sql + node.js + react)
- Data about companies should be stored in database

Example:

Name | Company Estimated Earnings | Company Estimated Earnings + Child Companies(on all levels) Estimated Earnings

If you edit earnings of Company3 from 5 to 10, total earnings of Company1 should be updated automatically from 53 to 58. If you add Company8 as child of Company3, total of Company1 should be updated as well.

 -Company1 | 25K$ | 53K$

  --Company2 | 13K$ | 18K$

   ---Company3 | 5K$

  --Company4 | 10K$

-Company5 | 10K$ | 30K$

--Company6 | 15K$

--Company7 | 5K$

- Nesting level is not limited
- Companies quantity on each level is unlimited
- **Single page approach should be used** (using react/angular/vue.js framework would be a big plus).
- Any solution should demonstrate best practices where appropriate such as SOLID principles.

To submit work, following things should be provided:

1) Link for source code (github, bitbucket, etc.)
2) Instructions how to run your app on local machine from sources (readmy of repository is the best place for this)
3) Link for deployed web application

Some useful sources to read:

https://devcenter.heroku.com/articles/deploying-nodejs

http://blog.sodhanalibrary.com/2015/12/how-to-deploy-java-web-application-in.html

http://www.tothenew.com/blog/deploy-asp-net-application-on-amazon-ec2/

https://cloud.google.com/appengine/docs/standard/python/tools/uploadinganapp