# ⑨ Splitwise Cashflow Minimization (Heaps)

Same problem statement as proj: 8

# How to create the data which is used as an input to create the problem graph.

```
function createData(){
  const sz = Math.floor(Math.random()*8)+2;
  let nodes = [];
  for (let i=1; i<=sz; i++){
    nodes.push({id:i, label:"Person"+i})
  }
  nodes = new vis.DataSet(nodes);
  const edges = [];
  for (let i=1; i<=sz; i++){
    for (let j=i+1; j<=sz; j++){
      if (Math.random() > 0.5){
        if (Math.random() > 0.5){
          edges.push({from:i, to:j, label: String(Math.floor(Math.random
                                                  ()*100)+1)});
        else
          edges.push({from:j, to:i, label: String(Math.floor(Math.random
                                                  ()*100)+1)});
      }
    }
  }
  const data = {
    nodes: nodes,
    edges: edges
  };
  return data;
}
```

Just a random range set for nodes ( $2 \le sz \le 9$

creating nodes. Instead of "Person" we can create an array of names & loop through it to give names.

by this we get nodes in the format required by vis.js.

1 → 2,3,4 ... sz & 5 → 6,7 ... sz

It modifies the no. of edges. So that our graph doesn't look very dense.