

Assignment 2 Plotting Data Scientists

Introduction

Assume that we have a data-science club where data scientists meet and discuss data analysis and visualization. The members in the club are either paid accounts or unpaid accounts. You are provided a list of tuples. Each tuple contains three elements:

- tenure, which is the number of years as a data scientist,
- salary, which is how much the data scientist ears,
- account, which is a number that is either 1 for a paid account or 0 for an unpaid account.

```
In [3]: import random
import numpy as np
import matplotlib.pyplot as plt
%matplotlib inline

In [4]: #do not change the below statement
data = [(0.7,48000,1),(1.9,48000,0),(2.5,60000,1),(4.2,63000,0),(6,76000,0),(6.5,69000,0),(7.5,76000,0),(8.1,86000,1),(9.1,91000,1),(9.5,95000,1),(9.8,98000,1),(10,100000,1),(10.1,105000,1),(10.2,108000,1),(10.3,110000,1),(10.4,112000,1),(10.5,114000,1),(10.6,116000,1),(10.7,118000,1),(10.8,120000,1),(10.9,122000,1),(11,124000,1),(11.1,126000,1),(11.2,128000,1),(11.3,130000,1),(11.4,132000,1),(11.5,134000,1),(11.6,136000,1),(11.7,138000,1),(11.8,140000,1),(11.9,142000,1),(12,144000,1),(12.1,146000,1),(12.2,148000,1),(12.3,150000,1),(12.4,152000,1),(12.5,154000,1),(12.6,156000,1),(12.7,158000,1),(12.8,160000,1),(12.9,162000,1),(13,164000,1),(13.1,166000,1),(13.2,168000,1),(13.3,170000,1),(13.4,172000,1),(13.5,174000,1),(13.6,176000,1),(13.7,178000,1),(13.8,180000,1),(13.9,182000,1),(14,184000,1),(14.1,186000,1),(14.2,188000,1),(14.3,190000,1),(14.4,192000,1),(14.5,194000,1),(14.6,196000,1),(14.7,198000,1),(14.8,200000,1),(14.9,202000,1),(15,204000,1),(15.1,206000,1),(15.2,208000,1),(15.3,210000,1),(15.4,212000,1),(15.5,214000,1),(15.6,216000,1),(15.7,218000,1),(15.8,220000,1),(15.9,222000,1),(16,224000,1),(16.1,226000,1),(16.2,228000,1),(16.3,230000,1),(16.4,232000,1),(16.5,234000,1),(16.6,236000,1),(16.7,238000,1),(16.8,240000,1),(16.9,242000,1),(17,244000,1),(17.1,246000,1),(17.2,248000,1),(17.3,250000,1),(17.4,252000,1),(17.5,254000,1),(17.6,256000,1),(17.7,258000,1),(17.8,260000,1),(17.9,262000,1),(18,264000,1),(18.1,266000,1),(18.2,268000,1),(18.3,270000,1),(18.4,272000,1),(18.5,274000,1),(18.6,276000,1),(18.7,278000,1),(18.8,280000,1),(18.9,282000,1),(19,284000,1),(19.1,286000,1),(19.2,288000,1),(19.3,290000,1),(19.4,292000,1),(19.5,294000,1),(19.6,296000,1),(19.7,298000,1),(19.8,300000,1),(19.9,302000,1),(20,304000,1),(20.1,306000,1),(20.2,308000,1),(20.3,310000,1),(20.4,312000,1),(20.5,314000,1),(20.6,316000,1),(20.7,318000,1),(20.8,320000,1),(20.9,322000,1),(21,324000,1),(21.1,326000,1),(21.2,328000,1),(21.3,330000,1),(21.4,332000,1),(21.5,334000,1),(21.6,336000,1),(21.7,338000,1),(21.8,340000,1),(21.9,342000,1),(22,344000,1),(22.1,346000,1),(22.2,348000,1),(22.3,350000,1),(22.4,352000,1),(22.5,354000,1),(22.6,356000,1),(22.7,358000,1),(22.8,360000,1),(22.9,362000,1),(23,364000,1),(23.1,366000,1),(23.2,368000,1),(23.3,370000,1),(23.4,372000,1),(23.5,374000,1),(23.6,376000,1),(23.7,378000,1),(23.8,380000,1),(23.9,382000,1),(24,384000,1),(24.1,386000,1),(24.2,388000,1),(24.3,390000,1),(24.4,392000,1),(24.5,394000,1),(24.6,396000,1),(24.7,398000,1),(24.8,400000,1),(24.9,402000,1),(25,404000,1),(25.1,406000,1),(25.2,408000,1),(25.3,410000,1),(25.4,412000,1),(25.5,414000,1),(25.6,416000,1),(25.7,418000,1),(25.8,420000,1),(25.9,422000,1),(26,424000,1),(26.1,426000,1),(26.2,428000,1),(26.3,430000,1),(26.4,432000,1),(26.5,434000,1),(26.6,436000,1),(26.7,438000,1),(26.8,440000,1),(26.9,442000,1),(27,444000,1),(27.1,446000,1),(27.2,448000,1),(27.3,450000,1),(27.4,452000,1),(27.5,454000,1),(27.6,456000,1),(27.7,458000,1),(27.8,460000,1),(27.9,462000,1),(28,464000,1),(28.1,466000,1),(28.2,468000,1),(28.3,470000,1),(28.4,472000,1),(28.5,474000,1),(28.6,476000,1),(28.7,478000,1),(28.8,480000,1),(28.9,482000,1),(29,484000,1),(29.1,486000,1),(29.2,488000,1),(29.3,490000,1),(29.4,492000,1),(29.5,494000,1),(29.6,496000,1),(29.7,498000,1),(29.8,500000,1),(29.9,502000,1),(30,504000,1),(30.1,506000,1),(30.2,508000,1),(30.3,510000,1),(30.4,512000,1),(30.5,514000,1),(30.6,516000,1),(30.7,518000,1),(30.8,520000,1),(30.9,522000,1),(31,524000,1),(31.1,526000,1),(31.2,528000,1),(31.3,530000,1),(31.4,532000,1),(31.5,534000,1),(31.6,536000,1),(31.7,538000,1),(31.8,540000,1),(31.9,542000,1),(32,544000,1),(32.1,546000,1),(32.2,548000,1),(32.3,550000,1),(32.4,552000,1),(32.5,554000,1),(32.6,556000,1),(32.7,558000,1),(32.8,560000,1),(32.9,562000,1),(33,564000,1),(33.1,566000,1),(33.2,568000,1),(33.3,570000,1),(33.4,572000,1),(33.5,574000,1),(33.6,576000,1),(33.7,578000,1),(33.8,580000,1),(33.9,582000,1),(34,584000,1),(34.1,586000,1),(34.2,588000,1),(34.3,590000,1),(34.4,592000,1),(34.5,594000,1),(34.6,596000,1),(34.7,598000,1),(34.8,600000,1),(34.9,602000,1),(35,604000,1),(35.1,606000,1),(35.2,608000,1),(35.3,610000,1),(35.4,612000,1),(35.5,614000,1),(35.6,616000,1),(35.7,618000,1),(35.8,620000,1),(35.9,622000,1),(36,624000,1),(36.1,626000,1),(36.2,628000,1),(36.3,630000,1),(36.4,632000,1),(36.5,634000,1),(36.6,636000,1),(36.7,638000,1),(36.8,640000,1),(36.9,642000,1),(37,644000,1),(37.1,646000,1),(37.2,648000,1),(37.3,650000,1),(37.4,652000,1),(37.5,654000,1),(37.6,656000,1),(37.7,658000,1),(37.8,660000,1),(37.9,662000,1),(38,664000,1),(38.1,666000,1),(38.2,668000,1),(38.3,670000,1),(38.4,672000,1),(38.5,674000,1),(38.6,676000,1),(38.7,678000,1),(38.8,680000,1),(38.9,682000,1),(39,684000,1),(39.1,686000,1),(39.2,688000,1),(39.3,690000,1),(39.4,692000,1),(39.5,694000,1),(39.6,696000,1),(39.7,698000,1),(39.8,700000,1),(39.9,702000,1),(40,704000,1),(40.1,706000,1),(40.2,708000,1),(40.3,710000,1),(40.4,712000,1),(40.5,714000,1),(40.6,716000,1),(40.7,718000,1),(40.8,720000,1),(40.9,722000,1),(41,724000,1),(41.1,726000,1),(41.2,728000,1),(41.3,730000,1),(41.4,732000,1),(41.5,734000,1),(41.6,736000,1),(41.7,738000,1),(41.8,740000,1),(41.9,742000,1),(42,744000,1),(42.1,746000,1),(42.2,748000,1),(42.3,750000,1),(42.4,752000,1),(42.5,754000,1),(42.6,756000,1),(42.7,758000,1),(42.8,760000,1),(42.9,762000,1),(43,764000,1),(43.1,766000,1),(43.2,768000,1),(43.3,770000,1),(43.4,772000,1),(43.5,774000,1),(43.6,776000,1),(43.7,778000,1),(43.8,780000,1),(43.9,782000,1),(44,784000,1),(44.1,786000,1),(44.2,788000,1),(44.3,790000,1),(44.4,792000,1),(44.5,794000,1),(44.6,796000,1),(44.7,798000,1),(44.8,800000,1),(44.9,802000,1),(45,804000,1),(45.1,806000,1),(45.2,808000,1),(45.3,810000,1),(45.4,812000,1),(45.5,814000,1),(45.6,816000,1),(45.7,818000,1),(45.8,820000,1),(45.9,822000,1),(46,824000,1),(46.1,826000,1),(46.2,828000,1),(46.3,830000,1),(46.4,832000,1),(46.5,834000,1),(46.6,836000,1),(46.7,838000,1),(46.8,840000,1),(46.9,842000,1),(47,844000,1),(47.1,846000,1),(47.2,848000,1),(47.3,850000,1),(47.4,852000,1),(47.5,854000,1),(47.6,856000,1),(47.7,858000,1),(47.8,860000,1),(47.9,862000,1),(48,864000,1),(48.1,866000,1),(48.2,868000,1),(48.3,870000,1),(48.4,872000,1),(48.5,874000,1),(48.6,876000,1),(48.7,878000,1),(48.8,880000,1),(48.9,882000,1),(49,884000,1),(49.1,886000,1),(49.2,888000,1),(49.3,890000,1),(49.4,892000,1),(49.5,894000,1),(49.6,896000,1),(49.7,898000,1),(49.8,900000,1),(49.9,902000,1),(50,904000,1),(50.1,906000,1),(50.2,908000,1),(50.3,910000,1),(50.4,912000,1),(50.5,914000,1),(50.6,916000,1),(50.7,918000,1),(50.8,920000,1),(50.9,922000,1),(51,924000,1),(51.1,926000,1),(51.2,928000,1),(51.3,930000,1),(51.4,932000,1),(51.5,934000,1),(51.6,936000,1),(51.7,938000,1),(51.8,940000,1),(51.9,942000,1),(52,944000,1),(52.1,946000,1),(52.2,948000,1),(52.3,950000,1),(52.4,952000,1),(52.5,954000,1),(52.6,956000,1),(52.7,958000,1),(52.8,960000,1),(52.9,962000,1),(53,964000,1),(53.1,966000,1),(53.2,968000,1),(53.3,970000,1),(53.4,972000,1),(53.5,974000,1),(53.6,976000,1),(53.7,978000,1),(53.8,980000,1),(53.9,982000,1),(54,984000,1),(54.1,986000,1),(54.2,988000,1),(54.3,990000,1),(54.4,992000,1),(54.5,994000,1),(54.6,996000,1),(54.7,998000,1),(54.8,1000000,1),(54.9,1002000,1),(55,1004000,1),(55.1,1006000,1),(55.2,1008000,1),(55.3,1010000,1),(55.4,1012000,1),(55.5,1014000,1),(55.6,1016000,1),(55.7,1018000,1),(55.8,1020000,1),(55.9,1022000,1),(56,1024000,1),(56.1,1026000,1),(56.2,1028000,1),(56.3,1030000,1),(56.4,1032000,1),(56.5,1034000,1),(56.6,1036000,1),(56.7,1038000,1),(56.8,1040000,1),(56.9,1042000,1),(57,1044000,1),(57.1,1046000,1),(57.2,1048000,1),(57.3,1050000,1),(57.4,1052000,1),(57.5,1054000,1),(57.6,1056000,1),(57.7,1058000,1),(57.8,1060000,1),(57.9,1062000,1),(58,1064000,1),(58.1,1066000,1),(58.2,1068000,1),(58.3,1070000,1),(58.4,1072000,1),(58.5,1074000,1),(58.6,1076000,1),(58.7,1078000,1),(58.8,1080000,1),(58.9,1082000,1),(59,1084000,1),(59.1,1086000,1),(59.2,1088000,1),(59.3,1090000,1),(59.4,1092000,1),(59.5,1094000,1),(59.6,1096000,1),(59.7,1098000,1),(59.8,1100000,1),(59.9,1102000,1),(60,1104000,1),(60.1,1106000,1),(60.2,1108000,1),(60.3,1110000,1),(60.4,1112000,1),(60.5,1114000,1),(60.6,1116000,1),(60.7,1118000,1),(60.8,1120000,1),(60.9,1122000,1),(61,1124000,1),(61.1,1126000,1),(61.2,1128000,1),(61.3,1130000,1),(61.4,1132000,1),(61.5,1134000,1),(61.6,1136000,1),(61.7,1138000,1),(61.8,1140000,1),(61.9,1142000,1),(62,1144000,1),(62.1,1146000,1),(62.2,1148000,1),(62.3,1150000,1),(62.4,1152000,1),(62.5,1154000,1),(62.6,1156000,1),(62.7,1158000,1),(62.8,1160000,1),(62.9,1162000,1),(63,1164000,1),(63.1,1166000,1),(63.2,1168000,1),(63.3,1170000,1),(63.4,1172000,1),(63.5,1174000,1),(63.6,1176000,1),(63.7,1178000,1),(63.8,1180000,1),(63.9,1182000,1),(64,1184000,1),(64.1,1186000,1),(64.2,1188000,1),(64.3,1190000,1),(64.4,1192000,1),(64.5,1194000,1),(64.6,1196000,1),(64.7,1198000,1),(64.8,1200000,1),(64.9,1202000,1),(65,1204000,1),(65.1,1206000,1),(65.2,1208000,1),(65.3,1210000,1),(65.4,1212000,1),(65.5,1214000,1),(65.6,1216000,1),(65.7,1218000,1),(65.8,1220000,1),(65.9,1222000,1),(66,1224000,1),(66.1,1226000,1),(66.2,1228000,1),(66.3,1230000,1),(66.4,1232000,1),(66.5,1234000,1),(66.6,1236000,1),(66.7,1238000,1),(66.8,1240000,1),(66.9,1242000,1),(67,1244000,1),(67.1,1246000,1),(67.2,1248000,1),(67.3,1250000,1),(67.4,1252000,1),(67.5,1254000,1),(67.6,1256000,1),(67.7,1258000,1),(67.8,1260000,1),(67.9,1262000,1),(68,1264000,1),(68.1,1266000,1),(68.2,1268000,1),(68.3,1270000,1),(68.4,1272000,1),(68.5,1274000,1),(68.6,1276000,1),(68.7,1278000,1),(68.8,1280000,1),(68.9,1282000,1),(69,1284000,1),(69.1,1286000,1),(69.2,1288000,1),(69.3,1290000,1),(69.4,1292000,1),(69.5,1294000,1),(69.6,1296000,1),(69.7,1298000,1),(69.8,1300000,1),(69.9,1302000,1),(70,1304000,1),(70.1,1306000,1),(70.2,1308000,1),(70.3,1310000,1),(70.4,1312000,1),(70.5,1314000,1),(70.6,1316000,1),(70.7,1318000,1),(70.8,1320000,1),(70.9,1322000,1),(71,1324000,1),(71.1,1326000,1),(71.2,1328000,1),(71.3,1330000,1),(71.4,1332000,1),(71.5,1334000,1),(71.6,1336000,1),(71.7,1338000,1),(71.8,1340000,1),(71.9,1342000,1),(72,1344000,1),(72.1,1346000,1),(72.2,1348000,1),(72.3,1350000,1),(72.4,1352000,1),(72.5,1354000,1),(72.6,1356000,1),(72.7,1358000,1),(72.8,1360000,1),(72.9,1362000,1),(73,1364000,1),(73.1,1366000,1),(73.2,1368000,1),(73.3,1370000,1),(73.4,1372000,1),(73.5,1374000,1),(73.6,1376000,1),(73.7,1378000,1),(73.8,1380000,1),(73.9,1382000,1),(74,1384000,1),(74.1,1386000,1),(74.2,1388000,1),(74.3,1390000,1),(74.4,1392000,1),(74.5,1394000,1),(74.6,1396000,1),(74.7,1398000,1),(74.8,1400000,1),(74.9,1402000,1),(75,1404000,1),(75.1,1406000,1),(75.2,1408000,1),(75.3,1410000,1),(75.4,1412000,1),(75.5,1414000,1),(75.6,1416000,1),(75.7,1418000,1),(75.8,1420000,1),(75.9,1422000,1),(76,1424000,1),(76.1,1426000,1),(76.2,1428000,1),(76.3,1430000,1),(76.4,1432000,1),(76.5,1434000,1),(76.6,1436000,1),(76.7,1438000,1),(76.8,1440000,1),(76.9,1442000,1),(77,1444000,1),(77.1,1446000,1),(77.2,1448000,1),(77.3,1450000,1),(77.4,1452000,1),(77.5,1454000,1),(77.6,1456000,1),(77.7,1458000,1),(77.8,1460000,1),(77.9,1462000,1),(78,1464000,1),(78.1,1466000,1),(78.2,1468000,1),(78.3,1470000,1),(78.4,1472000,1),(78.5,1474000,1),(78.6,1476000,1),(78.7,1478000,1),(78.8,1480000,1),(78.9,1482000,1),(79,1484000,1),(79.1,1486000,1),(79.2,1488000,1),(79.3,1490000,1),(79.4,1492000,1),(79.5,1494000,1),(79.6,1496000,1),(79.7,1498000,1),(79.8,1500000,1),(79.9,1502000,1),(80,1504000,1),(80.1,1506000,1),(80.2,1508000,1),(80.3,1510000,1),(80.4,1512000,1),(80.5,1514000,1),(80.6,1516000,1),(80.7,1518000,1),(80.8,1520000,1),(80.9,1522000,1),(81,1524000,1),(81.1,1526000,1),(81.2,1528000,1),(81.3,1530000,1),(81.4,1532000,1),(81.5,1534000,1),(81.6,1536000,1),(81.7,1538000,1),(81.8,1540000,1),(81.9,1542000,1),(82,1544000,1),(82.1,1546000,1),(82.2,1548000,1),(82.3,1550000,1),(82.4,1552000,1),(82.5,1554000,1),(82.6,1556000,1),(82.7,1558000,1),(82.8,1560000,1),(82.9,1562000,1),(83,1564000,1),(83.1,1566000,1),(83.2,1568000,1),(83.3,1570000,1),(83.4,1572000,1),(83.5,1574000,1),(83.6,1576000,1),(83.7,1578000,1),(83.8,1580000,1),(83.9,1582000,1),(84,1584000,1),(84.1,1586000,1),(84.2,1588000,1),(84.3,1590000,1),(84.4,1592000,1),(84.5,1594000,1),(84.6,1596000,1),(84.7,1598000,1),(84.8,1600000,1),(84.9,1602000,1),(85,1604000,1),(85.1,1606000,1),(85.2,1608000,1),(85.3,1610000,1),(85.4,1612000,1),(85.5,1614000,1),(85.6,1616000,1),(85.7,1618000,1),(85.8,1620000,1),(85.9,1622000,1),(86,1624000,1),(86.1,1626000,1),(86.2,1628000,1),(86.3,1630000,1),(86.4,1632000,1),(86.5,1634000,1),(86.6,1636000,1),(86.7,1638000,1),(86.8,1640000,1),(86.9,1642000,1),(87,1644000,1),(87.1,1646000,1),(87.2,1648000,1),(87.3,1650000,1),(87.4,1652000,1),(87.5,1654000,1),(87.6,1656000,1),(87.7,1658000,1),(87.8,1660000,1),(87.9,1662000,1),(88,1664000,1),(88.1,1666000,1),(88.2,1668000,1),(88.3,1670000,1),(88.4,1672000,1),(88.5,1674000,1),(88.6,1676000,1),(88.7,1678000,1),(88.8,1680000,1),(88.9,1682000,1),(89,1684000,1),(89.1,1686000,1),(89.2,1688000,1),(89.3,1690000,1),(89.4,1692000,1),(89.5,1694000,1),(89.6,1696000,1),(89.7,1698000,1),(89.8,1700000,1),(89.9,1702000,1),(90,1704000,1),(90.1,1706000,1),(90.2,1708000,1),(90.3,1710000,1),(90.4,1712000,1),(90.5,1714000,1),(90.6,1716000,1),(90.7,1718000,1),(90.8,1720000,1),(90.9,1722000,1),(91,1724000,1),(91.1,1726000,1),(91.2,1728000,1),(91.3,1730000,1),(91.4,1732000,1),(91.5,1734000,1),(91.6,1736000,1),(91.7,1738000,1),(91.8,1740000,1),(91.9,1742000,1),(92,1744000,1),(92.1,1746000,1),(92.2,1748000,1),(92.3,1750000,1),(92.4,1752000,1),(92.5,1754000,1),(92.6,1756000,1),(92.7,1758000,1),(92.8,1760000,1),(92.9,1762000,1),(93,1764000,1),(93.1,1766000,1),(93.2,1768000,1),(93.3,1770000,1),(93.4,1772000,1),(93.5,1774000,1),(93.6,1776000,1),(93.7,177
```