**Mncedisi Mncwabe HomeChoice Assessment Submission**

**1.)** Python Exercise

x = (2,2,2,2,4,7,7,7,7,13,13,13,13,13,13,13,13,17,17,33,33,33,33,33,33,33,33,33

,33,33,33,33,33,33,33,33,33,33,33,33,33,33,41,41,41,41,41,41,41)

**def ascii\_density\_histogram(val):**

**histogram = {}**

**for p in val:**

**histogram[p] = histogram.get(p, 0) + 1**

**return histogram**

**def ascii\_histogram(val):**

**cnt = ascii\_density\_histogram(val)**

**for p in sorted(cnt):**

**print('{0:5d} {1}'.format(p, '#' \* cnt[p]))**

**print(ascii\_density\_histogram(x))**

**ascii\_histogram(x)**

**Output**

Text

Description automatically generated

**2.)** SQL Exercise

**SELECT** o.customerID, i.item\_category, **COUNT**(o.orderID) **AS** n\_orders

**FROM** orders **AS** o

**LEFT JOIN** item\_info **AS** i

**ON** o.itemID = i.itemID

**GROUP BY 1,2**