## **SOCIAL COMPUTING - P1 HYPOTHESIS 1 RESULTS**

Number of Circles vs. Degree of Each Node (0)

150 100 50 1 1.2 1.4 1.6 1.8 2 Number of circles

Fig 1 – Graph for Ego Node 0

Number of Circles vs. Degree of Each Node (348)

200

150

100

100

1 2 3 4 5 6 7

Number of circles

Fig 2 – Graph for Ego Node 348

Hypothesis - A node with higher degree would belong to more number of circles.

As it can be seen in the graph from Fig 2, the given hypothesis is true.

When the degree is higher an increase in the number of circles the node is present in is noticed apart from a few skewed points on the graph a common trend of the number of circles increasing is observed.

A node which has a higher degree is connected to a higher number of nodes when compared to a node that has a lower degree. When it's linked to more nodes, the chances of the node being part of more circles are higher. Hence, a node with a higher degree would belong to more number of circles.

No such conclusion can be obtained from Fig 1.