In [1]:
```
import pickle
db_class=open('C:\\Users\\HP\\OneDrive\\Desktop\\sem4\\NS\\project\\data\\carts','rb')            #load
ing carts
carts=pickle.load(db_class)
```

In [2]:
```
def cc(itr):
    itr_cart=carts[itr]
    edge_list={}
    for i in range(500):
        edge_list[i]=[]

    for i in itr_cart:
        for j in range(len(i)-1):
            for k in (j+1,len(i)):
                if k not in edge_list[j]:
                    edge_list[j].append(k)
                if j not in edge_list[k]:
                    edge_list[k].append(j)
    cc_itr=cc_calc(edge_list)
    return cc_itr
```

In [5]:
```
#CLUSTERING COEFFICIENT
def cc_calc(edge_list):
    cc_t=0
    for u in edge_list:
        cc_u=0
        k=len(edge_list[u])
        cc_u=0
        if k > 1:
            c=0
            s=[]
            for v in edge_list[u]:
                if u<v:
                    lst1=edge_list[u]
                    lst2=edge_list[v]
                    s=list(set(lst1) & set(lst2))    #finding common nodes between the neighbours
                    for w in s:
                        if v<w:
                            c=c+1                        #calculating total number of triangles for a node
 'u'

            cc_u=(2*c)/(k*(k-1))                        #clustering coefficient for a node
        cc_t=cc_t+cc_u

    avg_cc=cc_t/(len(edge_list))                            #computing average
    return avg_cc
```

In [6]:
```
s1=0
for i in carts:
    cc_itr=cc(i)
    s1=s1+cc_itr
s1=s1/10
print("Average Clustering Coefficient is: ",s1)
```

```
Average Clustering Coefficient is:  0.014500243692234535
```

In [ ]: