K. J. Somaiya College of Engineering, Mumbai-77

(Autonomous College Affiliated to University of Mumbai)

Batch: BDA2 Roll No.: 1211061

Experiment / assignment / tutorial No.__10___

Grade: AA / AB / BB / BC / CC / CD /DD

Signature of the Staff In-charge with date

TITLE : Mini project: (Title of the Mini Project)

AIM : Mini project: One real life Big data application to be implemented (Use Standard data set available on the Web). Like Twitter data analysis, Fraud detection, text mining etc.

Expected Outcome of Experiment :

CO4 : Understand the perspective of big data analytics in various application like recommender system, social media applications, etc.

Books/ Journals/ Websites referred :

1. Anand Rajaraman and Jeff Ullman "Mining of Massive Datasets", Cambridge University Press,

2. Alex Holmes "Hadoop in Practice", Manning Press, Dreamtech Press.

3. Big data analytics by Radha Shankarmani, M. Vijayalakshmi. Wiley publication

Problem Definition:

To analyse the Electrical Consumption of an Organization.

Outcome of the Project:

- Maximum and minimum annual electrical consumption of the organization and the corresponding years in the past 1000 years.
- Months in which total electrical consumption is maximum and minimum till date
- Average annual electrical consumption of the organization till date.
- Maximum and minimum monthly average electrical consumption in past 1000 years.

Data Set Analyzed:

The data set consistes of a record of previous 1000 years' electrical consumption of each month and per unit price of each year of an organization.

- The first column consists of the year in which the electrical consumption details are mentioned.
- Columns 2 to 13 give information about monthly electrical consumption of that organization.
- The last column gives the per unit price of electrical consumption of that particular year.

Sample of Input and Output format of Data Set:

Sample of Input:

1016 932 978 795 372 224 953 553 140 720 139 902 942 1112
1017 880 228 587 180 352 672 532 643 415 469 497 244 1051
1018 756 210 783 812 527 629 608 515 575 437 536 335 1170
1019 357 356 312 390 688 531 946 886 537 373 735 161 1289
1020 876 724 286 435 418 325 854 738 806 733 503 430 1096
1021 527 885 664 261 436 184 633 482 421 839 791 334 1208
1022 314 792 433 559 719 504 387 932 339 862 663 758 1490
1023 375 903 900 687 568 605 203 949 1000 384 842 689 1099
1024 280 254 560 312 558 478 617 264 812 582 132 404 1329

Output:

Year : 1303 has the maximum annual consumption of 9319
Year : 1438 has the minimum annual consumption of 3475
The month of July has the minimum total consumption of 539950 (monthwise)
The month of February has the maximum total consumption of 558107 (monthwise)
The average annual consumption is : 6600.832
The month of July has the minimum average consumption of 539.95
The month of February has the maximum average consumption of 558.107

Conclusion: Thus, the Electrical Consumption of an Organization was analysed successfully useful results were deducted effectively.