**AIR UNIVERSITY ISLAMABAD**

**FACULTY OF COMPUTING &**

**ARTIFICIAL INTELLIGENCE**

**DEPARTMENT OF COMPUTER SCIENCE**

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**Assignment:** 02

**SUBMITTED BY:**

**Name:** Hamza Afzal

**Roll no:** 210948

**Class:** BSCS-V-B

**SUBMITTED TO:**

**Instructor:** Junaid Nazar

**Course:** Design & Analysis of Algorithms

**Computational Time for Attributes using different sorting algorithms: (unit : milliseconds )**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute Name** | **Insertion Sort (Non-increasing order)** | **Insertion Sort (Non-decreasing order)** | **Merge Sort (Non-increasing order)** | **Merge Sort (Non-decreasing order)** |
| Credit Loan Amount | 437354.1 | 390080.5 | 352.893 | 383.092 |
| Credit Score | 294801.5 | 347172.2 | 341.439 | 440.077 |
| Annual Income | 468213.6 | 282471.2 | 351.204 | 612.035 |
| Monthly Debt | 421178.9 | 263528.2 | 323.096 | 348.147 |
| Year of Credit History | 658029.2 | 396057.5 | 357.845 | 411.216 |
| Months since last delinquent | 304106.6 | 211708.8 | 358.006 | 359.872 |
| Number of Open Accounts | 251407.5 | 262797.4 | 344.053 | 350.613 |
| Number of Credit Problems | 69873.48 | 70156.35 | 238.215 | 332.456 |
| Credit Card Balance | 296793.8 | 444548.8 | 364.875 | 377.074 |
| Maximum Open Credit | 295598.1 | 364218.5 | 363.456 | 463.187 |
| Bankruptcies | 58437.56 | 50793.74 | 243.349 | 439.24 |
| Tax liens | 11373.25 | 9637.725 | 240.345 | 327.206 |