# US301 – Análise de Complexidade

public void importUserCSV(String path) throws IOException {  
 String line**;** String[] metadata**;** BufferedReader br = Files.*newBufferedReader*(Path.*of*(path))**;**  
 br.readLine()**;** line = br.readLine()**;** while (line != null) {  
 metadata = line.split(Constants.*CSV\_SPLIT\_REGEX*)**;** addUser(metadata[Constants.User.*LOC\_ID*.ordinal()]**,** metadata[Constants.User.*USER\_ID*.ordinal()]**,** Double.*parseDouble*(metadata[Constants.User.*LAT*.ordinal()])**,** Double.*parseDouble*(metadata[Constants.User.*LNG*.ordinal()]))**;** line = br.readLine()**;** }  
}

public void importDistanceCSV(String path) throws IOException {  
 String line**;** String[] metadata**;** BufferedReader br = Files.*newBufferedReader*(Path.*of*(path))**;** //skip header  
 br.readLine()**;** line = br.readLine()**;** while (line != null) {  
 metadata = line.split(Constants.*CSV\_SPLIT\_REGEX*)**;** addPath(metadata[Constants.Distance.*LOC\_ID\_1*.ordinal()]**,** metadata[Constants.Distance.*LOC\_ID\_2*.ordinal()]**,** Integer.*parseInt*(metadata[Constants.Distance.*LENGTH*.ordinal()]))**;** line = br.readLine()**;** }  
}

|  |  |  |
| --- | --- | --- |
| Linha | Código | Complexidade |
| 1-4 | String line**;** String[] metadata**;** BufferedReader br = Files.*newBufferedReader*(Path.*of*(path))**;** br.readLine()**;** | 1 |
| 5 | while (line != null) { | n |
| 6 | metadata[Constants.User.*USER\_ID*.ordinal()]**,**  Double.*parseDouble*(metadata[Constants.User.*LAT*.ordinal()])**,**  Double.*parseDouble*(metadata[Constants.User.*LNG*.ordinal()]))**;** | n |
| 7 | line = br.readLine()**;** | n |
| 8 | } |  |
|  |  |  |

Ambos os métodos têm **O(n)** complexidade, onde n é o número de linhas do ficheiro recebido por parâmetro.