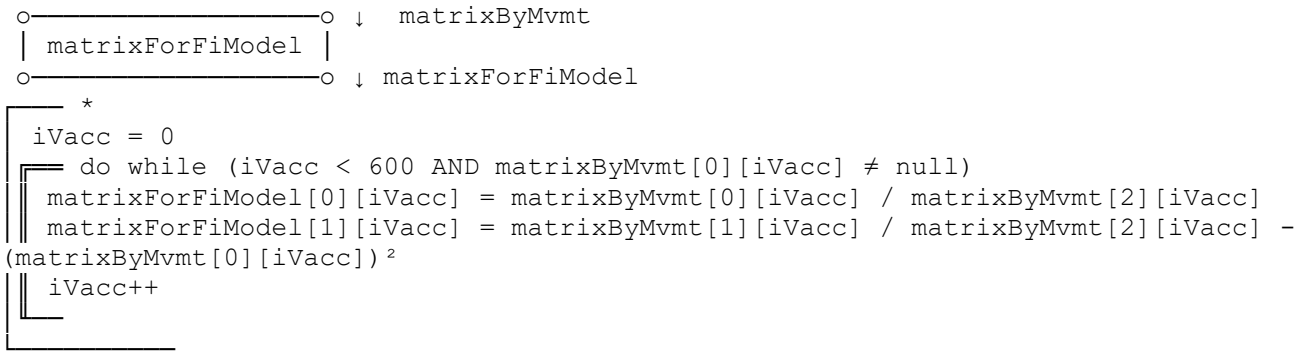
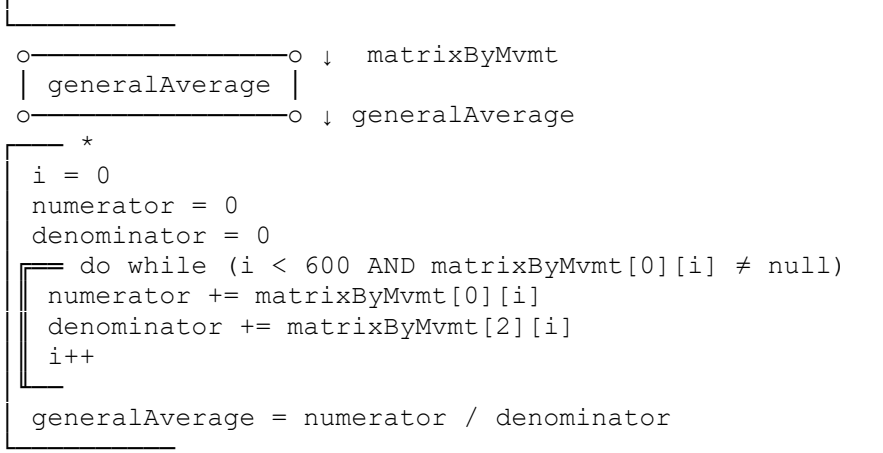
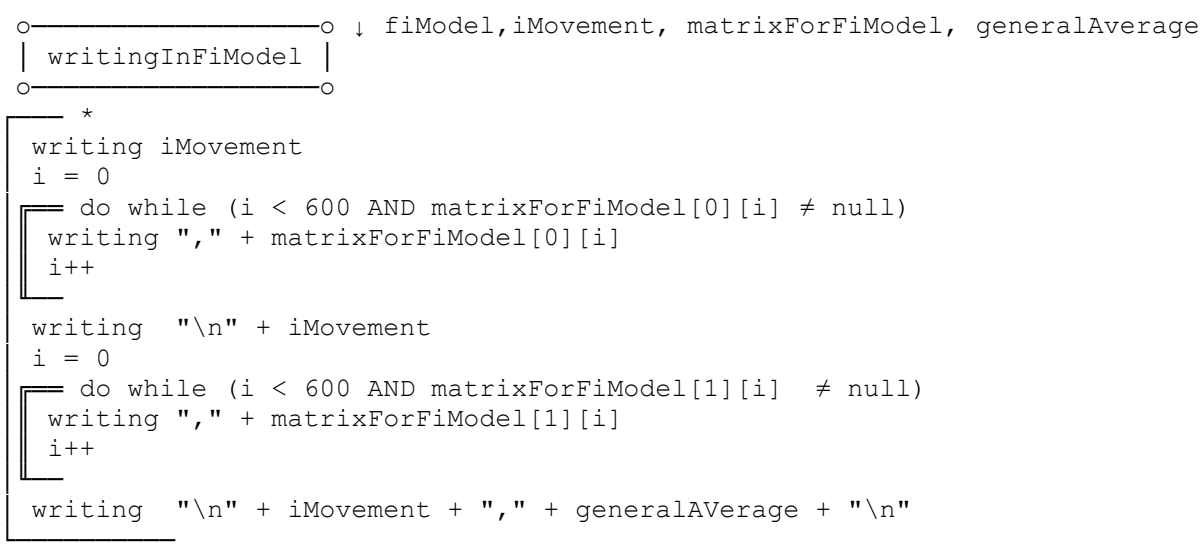
```
// Structure to read in trainSet.csv
 // struct file {
 //    movement,
 //    gender,
 //    index,
 //    vAcc1,
 //    ...,
 //    vAcc600
 // }

  o──────o
 | Main |
 o──────o
 ──── *
 open trainset.csv in reading
 open fiModel.csv in writing
 |
 writing "Mouvement" in fiModel.csv

 i = 0
 ╔═══ do while (i < 600)
 ╠ writing "Vacc" + i + 1 in fiModel.csv
 ╠ i++
 ╚═══
 |
 line = reading 1 line in trainSet.csv with file

 iMovement = 1
 ╔═══ do while(iMovement ≤ 6)
 ╠
 ╠ matrixByMvmt[3][600] = {0}
 ╠
 ╠═══ do while (file.movement == iMovement)
 ╠ ╠ iVacc = 0
 ╠ ╠
 ╠ ╠═══ do while (iVacc < 600 AND file.vAcc(iVacc + 1) ≠ null)
 ╠ ╠ ╠ matrixByMvmt[0][iVacc] += file.vAcc(iVacc + 1) // sum for averages
 ╠ ╠ ╠ matrixByMvmt[1][iVacc] += (file.vAcc(iVacc + 1))² // sum for standard deviation
 ╠ ╠ ╠ matrixByMvmt[2][iVacc]++ // number of occurences by Vacc
 ╠ ╠ ╠ iVacc++
 ╠ ╠ ╚═══
 ╠ ╠ line = reading 1 line in trainSet.csv with file
 ╠ ╚═══
 ╠ o──────────────────o ↓  matrixByMvmt
 ╠ | matrixForFiModel |
 ╠ o──────────────────o ↓ matrixForFiModel
 ╠
 ╠ o─────────────────o ↓  matrixByMvmt
 ╠ | generalAverage |
 ╠ o─────────────────o ↓ generalAverage
 ╠
 ╠ o──────────────────o ↓ fiModel,iMovement, matrixForFiModel, generalAverage
 ╠ | writingInFiModel |
 ╠ o──────────────────o
 ╠
 ╠ iMovement++
 ╚═══
 |
 close fiModel.csv
 close trainset.csv
 ─────────
```


matrixForFiModel
matrixByMvmt
matrixForFiModel
iVacc = 0
do while (iVacc < 600 AND matrixByMvmt[0][iVacc] ≠ null)
matrixForFiModel[0][iVacc] = matrixByMvmt[0][iVacc] / matrixByMvmt[2][iVacc]
matrixForFiModel[1][iVacc] = matrixByMvmt[1][iVacc] / matrixByMvmt[2][iVacc] -
(matrixByMvmt[0][iVacc])²
iVacc++


generalAverage
matrixByMvmt
generalAverage
i = 0
numerator = 0
denominator = 0
do while (i < 600 AND matrixByMvmt[0][i] ≠ null)
numerator += matrixByMvmt[0][i]
denominator += matrixByMvmt[2][i]
i++
generalAverage = numerator / denominator


writingInFiModel
fiModel,iMovement, matrixForFiModel, generalAverage
writing iMovement
i = 0
do while (i < 600 AND matrixForFiModel[0][i] ≠ null)
writing "," + matrixForFiModel[0][i]
i++
writing "\n" + iMovement
i = 0
do while (i < 600 AND matrixForFiModel[1][i] ≠ null)
writing "," + matrixForFiModel[1][i]
i++
writing "\n" + iMovement + "," + generalAVerage + "\n"