

DA Phase 2 : Créations de modèles

Fichier existant : trainSet.csv

Mouvement	Genre	Index	Vacc	Vacc	...	Vacc
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Objectif du DA :

- calculer les moyennes des varrAcc des 6 mouvements \Rightarrow trainSet.csv
- calculer les moyennes des varrAcc par genre (6 modèles par genre) \Rightarrow fiModelMen.csv + fiModelWomen.csv

Constantes :

```

TRAIN_SET = "trainSet.csv"
FI_MODEL = "fiModel.csv"
FI_MODEL_MEN = "fiModelMen.csv"
FI_MODEL_WOMEN = "fiModelWomen.csv"
LENGTH_TITLE = 50
NB_PATH = 15
LG_PATH = 10
NB_FILES = 360
NB_DATA = 600
    
```

Structures :

```

paths[NBPATH][LGPATH] = { /*libellés des colonnes*/ }
sumAveragesMen[NB_DATA]
sumAveragesWomen[NB_DATA]
nbValuesMen[NB_DATA]
nbValuesWomen[NB_DATA]
    
```

```

0-----0
| Creation of models |
0-----0 ↓ error

* Creation of models
fopen_s(&pFiTrainSet, TRAIN_SET, "r")
fopen_s(&pFiModel, FI_MODEL, "w")
fopen_s(&pFiMen, FI_MODEL_MEN, "w")
fopen_s(&pFiWomen, FI_MODEL_WOMEN, "w")

if (pFiTrainSet AND pFiModel AND pFiMen AND pFiWomen)
    iLine = 1
    pFiTrainSet = se positionner sur la Line n° 1 de "trainSet.csv"
    title = Ligne n° iLine pFiTrainSet
    error = fgets(title, LENGTH_TITLE, pFiTrainSet)
    sortir title
    error = fscanf_s(pFiTrainSet, "%d", &mov.move)

    0-----0 ↓ pFitrainSet, iLine
    | posLineTrainSet |
    0-----0 ↓ iLine, pFitrainSet

do while (!eof(pFiTrainSet))
    movement = fscanf_s(pFiTrainSet, "%d", &mov.move)
    currentMovement = movement
    
```

```

sumAveragesMen[NB_DATA] = 0
sumAveragesWomen[NB_DATA] = 0
nbValuesMen[NB_DATA] = 0
nbValuesWomen[NB_DATA] = 0

do while (!eof(pFiTrainSet) AND currentMovement == mov)
    genderNum = ligne n° iLine, colonne n°2 dans "trainSet.csv"
    o-----o ↓ pFitrainSet, iLine
    | posLineTrainSet |
    o-----o ↓ iLine, pFitrainSet

    mov = fscanf_s(pFiTrainSet, "%d", &mov.move)

    if(genderNum == 0)
        o-----o ↓ iLine, sumAveragesWomen, nbValuesWomen
        | lineProcessing |
        o-----o ↓ sumAveragesWomen, nbValuesWomen
    else
        o-----o ↓ iLine, sumAveragesMen, nbValuesMen
        | lineProcessing |
        o-----o ↓ sumAveragesMen, nbValuesMen

    o-----o ↓ pFitrainSet, iLine
    | posLineTrainSet |
    o-----o ↓ iLine, pFitrainSet

    movement = fscanf_s(pFiTrainSet, "%d", &mov.move)
    currentMovement = movement

    o-----o ↓ pFiWomen, sumAveragesWomen,nbValuesWomen,movement, pFiMen,
    | writeData | sumAveragesMen,nbValuesMen
    o-----o ↓

fclose(pFiTrainSet)
fclose(pFiModel)
fclose(pFiMen)
fclose(pFiWomen)

else
    sortir "ERREUR : l'un des fichier n'a pu s'ouvrir"

```

```

o-----o ↓ iLine, sumAverages, nbValues
| lineProcessing |
o-----o ↓ sumAverages, nbValues

* lineProcessing
// car le 1er Vacc commence à la 4ème colonne
iRow = 4

do while (on est pas à la fin de la ligne en cours AND iRow < NB_DATA)
pFiTrainset = ligne n° iLine, colonne n° iRow
sumAverages[iRow] += valeur pointée par pFiTrainset (iLine, iRow)
nbValues[iRow]++
iRow++

o-----o ↓ pFitrainSet, iLine
| posLineTrainSet |
o-----o ↓ iLine, pFitrainSet

* posLineTrainSet
iLine++
pFiTrainSet = Ligne n° iLine dans "trainSet.csv"

o-----o ↓ pFiWomen, sumAveragesWomen,nbValuesWomen,movement, pFiMen,
| writeData | sumAveragesMen,nbValuesMen
o-----o ↓

* writeData
fprintf(pFiModel)
écrire le mouvement dans pFiModel

o-----o ↓ pFiWomen, movement
| writeGenderData |
o-----o

o-----o ↓ pFiMen, movement
| writeGenderData |
o-----o

iVacc = 0
do while (iVacc < NB_DATA)

finalAverageWomen = sumAveragesWomen[iVacc]/nbValuesWomen[iVacc]
écrire finalAverageWomen dans pFiWomen

finalAverageMen = sumAveragesMen[iVacc]/nbValuesMen[iVacc]
écrire finalAverageMen dans pFiMen

totalAverage = (finalAverageWomen + finalAverageMen) / 2
écrire totalAverage dans pFiModel

iVacc++

```

```

o-----o ↓ pFiGender, mouvement
| writeGenderData |
o-----o
* writeGenderData
fprintf(pFiGender)
écrire le mouvement dans pFiGender

```