ANNEXE : Données clients nécessaires à l'algorithme

|  |  |  |  |
| --- | --- | --- | --- |
| **Fichiers d'entrée** | **Variables** | **Variables après feature engineering** |  |
| **Application** | CNT\_CHILDREN | CNT\_CHILDREN |  |
| AMT\_INCOME\_TOTAL | AMT\_INCOME\_TOTAL |  |
| AMT\_CREDIT | AMT\_CREDIT |  |
| AMT\_ANNUITY | AMT\_ANNUITY |  |
| REGION\_POPULATION\_RELATIVE | REGION\_POPULATION\_RELATIVE |  |
| DAYS\_BIRTH | DAYS\_BIRTH |  |
| DAYS\_EMPLOYED | DAYS\_EMPLOYED |  |
| DAYS\_REGISTRATION | DAYS\_REGISTRATION |  |
| DAYS\_ID\_PUBLISH | DAYS\_ID\_PUBLISH |  |
| REGION\_RATING\_CLIENT | REGION\_RATING\_CLIENT |  |
| REGION\_RATING\_CLIENT\_W\_CITY | REGION\_RATING\_CLIENT\_W\_CITY |  |
| HOUR\_APPR\_PROCESS\_START | HOUR\_APPR\_PROCESS\_START |  |
| REG\_REGION\_NOT\_LIVE\_REGION | REG\_REGION\_NOT\_LIVE\_REGION |  |
| REG\_REGION\_NOT\_WORK\_REGION | REG\_REGION\_NOT\_WORK\_REGION |  |
| LIVE\_REGION\_NOT\_WORK\_REGION | LIVE\_REGION\_NOT\_WORK\_REGION |  |
| REG\_CITY\_NOT\_LIVE\_CITY | REG\_CITY\_NOT\_LIVE\_CITY |  |
| REG\_CITY\_NOT\_WORK\_CITY | REG\_CITY\_NOT\_WORK\_CITY |  |
| LIVE\_CITY\_NOT\_WORK\_CITY | LIVE\_CITY\_NOT\_WORK\_CITY |  |
| EXT\_SOURCE\_1 | EXT\_SOURCE\_1 |  |
| EXT\_SOURCE\_2 | EXT\_SOURCE\_2 |  |
| EXT\_SOURCE\_3 | EXT\_SOURCE\_3 |  |
| OBS\_30\_CNT\_SOCIAL\_CIRCLE | OBS\_30\_CNT\_SOCIAL\_CIRCLE |  |
| DEF\_30\_CNT\_SOCIAL\_CIRCLE | DEF\_30\_CNT\_SOCIAL\_CIRCLE |  |
| OBS\_60\_CNT\_SOCIAL\_CIRCLE | OBS\_60\_CNT\_SOCIAL\_CIRCLE |  |
| DEF\_60\_CNT\_SOCIAL\_CIRCLE | DEF\_60\_CNT\_SOCIAL\_CIRCLE |  |
| DAYS\_LAST\_PHONE\_CHANGE | DAYS\_LAST\_PHONE\_CHANGE |  |
| AMT\_REQ\_CREDIT\_BUREAU\_HOUR | AMT\_REQ\_CREDIT\_BUREAU\_HOUR |  |
| AMT\_REQ\_CREDIT\_BUREAU\_DAY | AMT\_REQ\_CREDIT\_BUREAU\_DAY |  |
| AMT\_REQ\_CREDIT\_BUREAU\_WEEK | AMT\_REQ\_CREDIT\_BUREAU\_WEEK |  |
| AMT\_REQ\_CREDIT\_BUREAU\_MON | AMT\_REQ\_CREDIT\_BUREAU\_MON |  |
| AMT\_REQ\_CREDIT\_BUREAU\_QRT | AMT\_REQ\_CREDIT\_BUREAU\_QRT |  |
| AMT\_REQ\_CREDIT\_BUREAU\_YEAR | AMT\_REQ\_CREDIT\_BUREAU\_YEAR |  |
| NAME\_CONTRACT\_TYPE | NAME\_CONTRACT\_TYPE |  |
| CODE\_GENDER | CODE\_GENDER |  |
| FLAG\_OWN\_CAR | FLAG\_OWN\_CAR |  |
| FLAG\_OWN\_REALTY | FLAG\_OWN\_REALTY |  |
| NAME\_INCOME\_TYPE | NAME\_INCOME\_TYPE |  |
| NAME\_EDUCATION\_TYPE | NAME\_EDUCATION\_TYPE |  |
| NAME\_FAMILY\_STATUS | NAME\_FAMILY\_STATUS |  |
| NAME\_HOUSING\_TYPE | NAME\_HOUSING\_TYPE |  |
| OCCUPATION\_TYPE | OCCUPATION\_TYPE |  |
| WEEKDAY\_APPR\_PROCESS\_START | WEEKDAY\_APPR\_PROCESS\_START |  |
| ORGANIZATION\_TYPE | ORGANIZATION\_TYPE |  |
| FLAG\_MOBIL | FLAG\_MOBIL |  |
| FLAG\_EMP\_PHONE | FLAG\_EMP\_PHONE |  |
| FLAG\_WORK\_PHONE | FLAG\_WORK\_PHONE |  |
| FLAG\_CONT\_MOBILE | FLAG\_CONT\_MOBILE |  |
| FLAG\_PHONE | FLAG\_PHONE |  |
| FLAG\_EMAIL | FLAG\_EMAIL |  |
| FLAG\_DOCUMENT\_2 | FLAG\_DOCUMENT\_2 |  |
| FLAG\_DOCUMENT\_3 | FLAG\_DOCUMENT\_3 |  |
| FLAG\_DOCUMENT\_4 | FLAG\_DOCUMENT\_4 |  |
| FLAG\_DOCUMENT\_5 | FLAG\_DOCUMENT\_5 |  |
| FLAG\_DOCUMENT\_6 | FLAG\_DOCUMENT\_6 |  |
| FLAG\_DOCUMENT\_7 | FLAG\_DOCUMENT\_7 |  |
| FLAG\_DOCUMENT\_8 | FLAG\_DOCUMENT\_8 |  |
| FLAG\_DOCUMENT\_9 | FLAG\_DOCUMENT\_9 |  |
| FLAG\_DOCUMENT\_10 | FLAG\_DOCUMENT\_10 |  |
| FLAG\_DOCUMENT\_11 | FLAG\_DOCUMENT\_11 |  |
| FLAG\_DOCUMENT\_12 | FLAG\_DOCUMENT\_12 |  |
| FLAG\_DOCUMENT\_13 | FLAG\_DOCUMENT\_13 |  |
| FLAG\_DOCUMENT\_14 | FLAG\_DOCUMENT\_14 |  |
| FLAG\_DOCUMENT\_15 | FLAG\_DOCUMENT\_15 |  |
| FLAG\_DOCUMENT\_16 | FLAG\_DOCUMENT\_16 |  |
| FLAG\_DOCUMENT\_17 | FLAG\_DOCUMENT\_17 |  |
| FLAG\_DOCUMENT\_18 | FLAG\_DOCUMENT\_18 |  |
| FLAG\_DOCUMENT\_19 | FLAG\_DOCUMENT\_19 |  |
| FLAG\_DOCUMENT\_20 | FLAG\_DOCUMENT\_20 |  |
| FLAG\_DOCUMENT\_21 | FLAG\_DOCUMENT\_21 |  |
| DAYS\_EMPLOYED/DAYS\_BIRTH = | DAYS\_EMPLOYED\_PERC |  |
| AMT\_INCOME\_TOTAL/AMT\_INCOME\_CREDIT = | INCOME\_CREDIT\_PERC |  |
| AMT\_INCOME\_TOTAL/CNT\_FAM\_MEMBERS = | INCOME\_PER\_PERSON |  |
| AMT\_ANNUITY/AMT\_INCOME\_TOTAL = | ANNUITY\_INCOME\_PERC |  |
| AMT\_ANNUITY/AMT\_CREDIT = | PAYMENT\_RATE |  |
| **Bureau** | DAYS\_CREDIT | BUREAU\_DAYS\_CREDIT\_MIN |  |
| BUREAU\_DAYS\_CREDIT\_MAX |  |
| BUREAU\_DAYS\_CREDIT\_MEAN |  |
| DAYS\_CREDIT\_ENDDATE | BUREAU\_DAYS\_CREDIT\_ENDDATE\_MAX |  |
| BUREAU\_DAYS\_CREDIT\_ENDDATE\_MEAN |  |
| CREDIT\_DAY\_OVERDUE | BUREAU\_CREDIT\_DAY\_OVERDUE\_MAX |  |
| AMT\_CREDIT\_SUM | BUREAU\_AMT\_CREDIT\_SUM\_MAX |  |
| AMT\_CREDIT\_SUM\_DEBT | BUREAU\_AMT\_CREDIT\_SUM\_DEBT\_MEAN |  |
| AMT\_CREDIT\_SUM\_OVERDUE | BUREAU\_AMT\_CREDIT\_SUM\_OVERDUE\_MEAN |  |
| AMT\_CREDIT\_SUM\_LIMIT | BUREAU\_AMT\_CREDIT\_SUM\_LIMIT\_SUM |  |
| CNT\_CREDIT\_PROLONG | BUREAU\_CNT\_CREDIT\_PROLONG\_SUM |  |
| CREDIT\_ACTIVE | BUREAU\_CREDIT\_ACTIVE\_MEAN |  |
| BUREAU\_CREDIT\_ACTIVE\_SUM |  |
| CREDIT\_CURRENCY | BUREAU\_CREDIT\_CURRENCY\_MEAN |  |
| CREDIT\_TYPE | BUREAU\_CREDIT\_TYPE\_MEAN |  |
| BUREAU\_CREDIT\_TYPE\_MAX |  |
| **Bureau balance** | MONTHS\_BALANCE | BUREAU\_MONTHS\_BALANCE\_SIZE\_SUM |  |
| **Installments** | DAYS\_INSTALLMENT-DAYS\_ENTRY\_PAYMENT  If < 0 🡪 0  Mean, max and sum for all installments | INSTAL\_DBD\_MAX |  |
| INSTAL\_DBD\_MEAN |  |
| INSTAL\_DBD\_SUM |  |
| AMT\_INSTALMENT | INSTAL\_AMT\_INSTALMENT\_MAX |  |
| AMT\_PAYMENT | INSTAL\_AMT\_PAYMENT\_MIN |  |
| DAYS\_ENTRY\_PAYMENT | INSTAL\_DAYS\_ENTRY\_PAYMENT\_MAX |  |
| (AMT\_PAYMENT/AMT\_INSTALLMENT)MAX = | INSTAL\_PAYMENT\_PERC\_MAX |  |
| (AMT\_INSTALLMENT-AMT\_PAYMENT)MEAN = | INSTAL\_PAYMENT\_DIFF\_MEAN |  |
| **Previous application** | AMT\_ANNUITY | PREV\_AMT\_ANNUITY\_MIN |  |
| PREV\_AMT\_ANNUITY\_MAX |  |
| PREV\_AMT\_ANNUITY\_MEAN |  |
| AMT\_APPLICATION | PREV\_AMT\_APPLICATION\_MIN |  |
| AMT\_CREDIT | PREV\_AMT\_CREDIT\_MIN |  |
| AMT\_DOWN\_PAYMENT | PREV\_AMT\_DOWN\_PAYMENT\_MIN |  |
| PREV\_AMT\_DOWN\_PAYMENT\_MEAN |  |
| AMT\_GOODS\_PRICE | PREV\_AMT\_GOODS\_PRICE\_MIN |  |
| HOUR\_APPR\_PROCESS\_START | PREV\_HOUR\_APPR\_PROCESS\_START\_MIN |  |
| PREV\_HOUR\_APPR\_PROCESS\_START\_MAX |  |
| PREV\_HOUR\_APPR\_PROCESS\_START\_MEAN |  |
| DAYS\_DECISION | PREV\_DAYS\_DECISION\_MIN |  |
| PREV\_DAYS\_DECISION\_MAX |  |
| CNT\_PAYMENT | PREV\_CNT\_PAYMENT\_MEAN |  |
| FLAG\_LAST\_APPL\_PER\_CONTRACT | PREV\_FLAG\_LAST\_APPL\_PER\_CONTRACT\_MEAN |  |
| NAME\_CASH\_LOAN\_PURPOSE | PREV\_NAME\_CASH\_LOAN\_PURPOSE\_MEAN |  |
| NAME\_CONTRACT\_STATUS | PREV\_NAME\_CONTRACT\_STATUS\_MAX |  |
| CODE\_REJECT\_REASON | PREV\_CODE\_REJECT\_REASON\_MEAN |  |
| NAME\_YIELD\_GROUP | PREV\_NAME\_YIELD\_GROUP\_MEAN |  |
| PRODUCT\_COMBINATION | PREV\_PRODUCT\_COMBINATION\_MEAN |  |
| AMT\_APPLICATION/AMT\_CREDIT  Min, max and mean for all previous app | PREV\_APP\_CREDIT\_PERC\_MIN |  |
| PREV\_APP\_CREDIT\_PERC\_MAX |  |
| PREV\_APP\_CREDIT\_PERC\_MEAN |  |
| **POS CASH** | MONTHS\_BALANCE | POS\_MONTHS\_BALANCE\_MAX |  |
| POS\_MONTHS\_BALANCE\_MEAN |  |
| SK\_DPD | POS\_SK\_DPD\_MAX |  |
| SK\_DPD\_DEF | POS\_SK\_DPD\_DEF\_MAX |  |
| NAME\_CONTRACT\_STATUS | POS\_NAME\_CONTRACT\_STATUS\_MIN |  |
| POS\_NAME\_CONTRACT\_STATUS\_MAX |  |
| **Credit card balance** | No variables from this dataset was used. | |  |