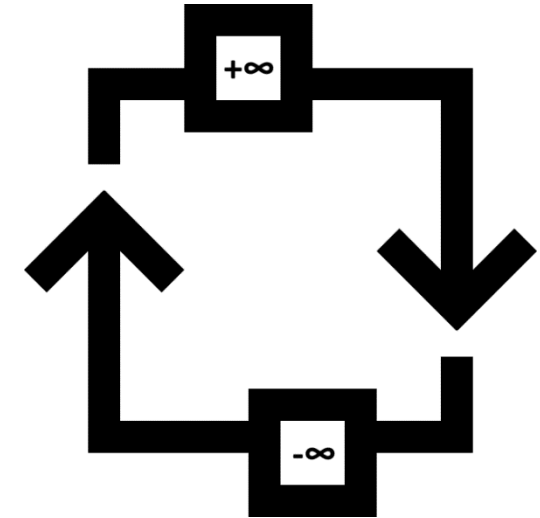


# Stroke Prediction

Convergent Analytics Health AI Suite



OpenEMR

localhost:18080/OpenEMR-7.0.2/interface/main/tabs/main.php?token\_main=VBg4zVOoeLQq6QztOCnkUT5n1Wx0zZJ4NJJ0gpMR

Calendar Finder Flow Recalls Messages Patient Fees Modules Procedures Admin Reports Miscellaneous Popups

Search by any demograph

Calendar Message Center Patient Flow Board Report Patient Finder jBPM Generic Callout

Health AI Solution Catalog

OpenEMR

Submit parameters and click on a link below to produce a callout to a specific solution deployed i

Stroke Prediction: Train/Validate/Test

Parameters:

1

- number of loop iterations

"C:/xampp/htdocs/OpenEMF

- path to working directory

Submit

jBPM

Sub Process 1

Setup

KeepAlive

Cleanup

Sub Process 2

Setup

OneOff

Repeat

Loop

Check

Result

Cleanup

PostgreSQL: accuracy test output

localhost:18080/OpenEMR-7.0.2/interface/main/ta

Calendar Finder Flow Recalls Messages Patient Fees Modules

Calendar Message Center jBPM Generic Callout

Health AI Solution Catalog

Submit parameters and click on a link below to produce a callout to a specif

- Stroke Prediction: Train/Validate/Test

Parameters:

1

"C:/xampp/htdocs/OpenEMF

["id','gender','ever\_married',

1

1

1

25.0

10.0

0.9

1

5

0.99

""

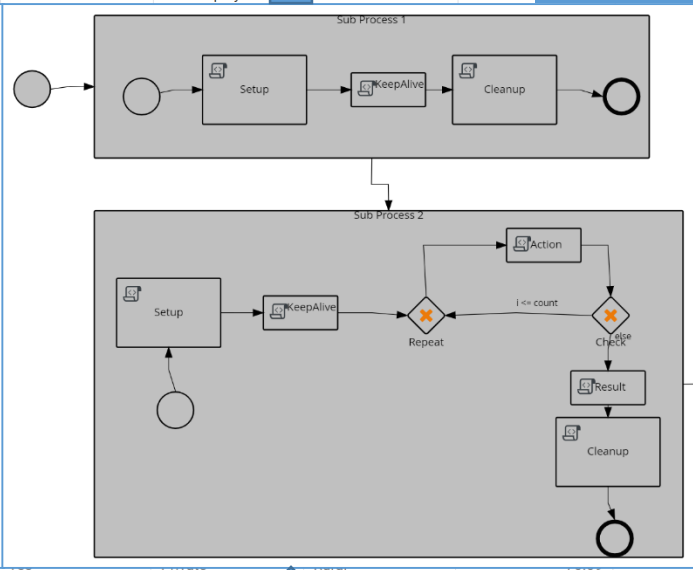
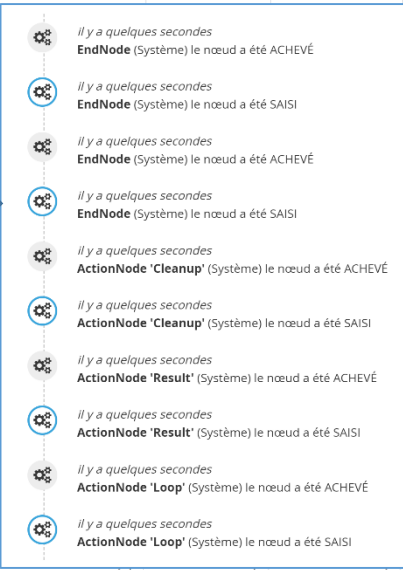
1

0

- number of loop iterations
- path to working directory
- list of columns to ignore in models
- sample balancing ratio
- number of training runs
- number of testing runs
- average gain per detected target
- average loss per processed case
- sample training fraction
- training-coupled validation flag
- number of folds
- training sample bagging fraction
- array of ensemble weight overrides
- training-based ensemble weights flag
- validation-based ensemble weights flag

OpenEMR

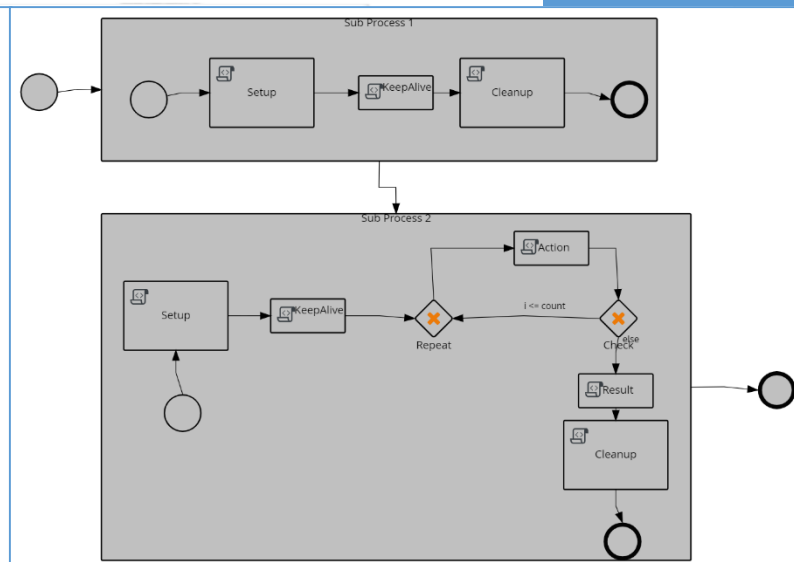
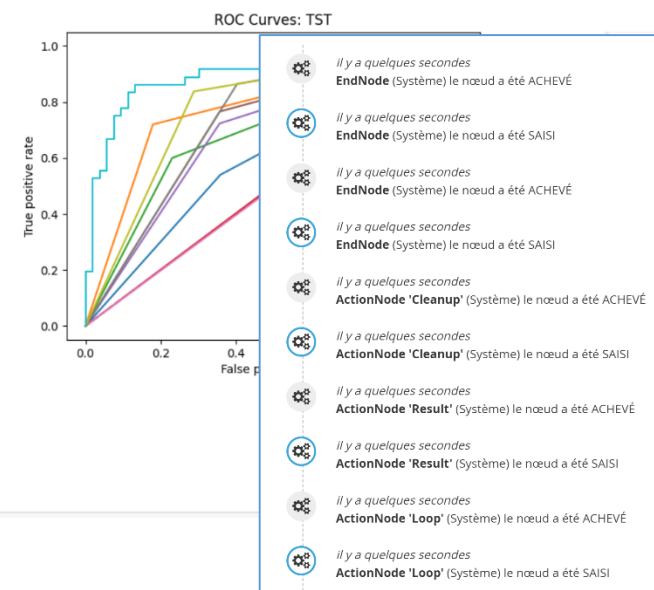
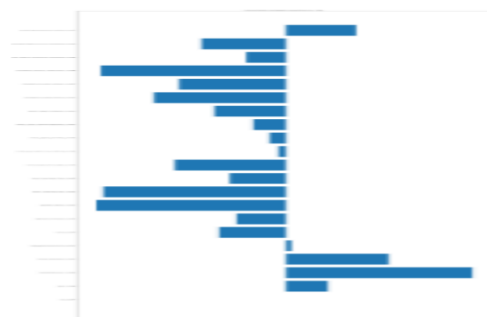
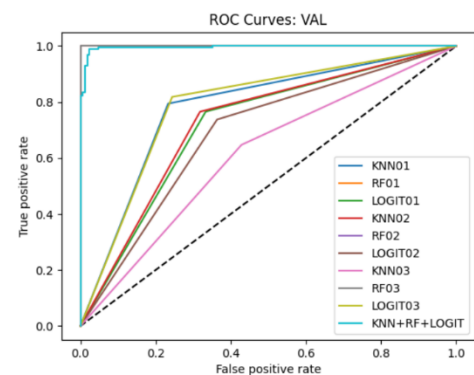
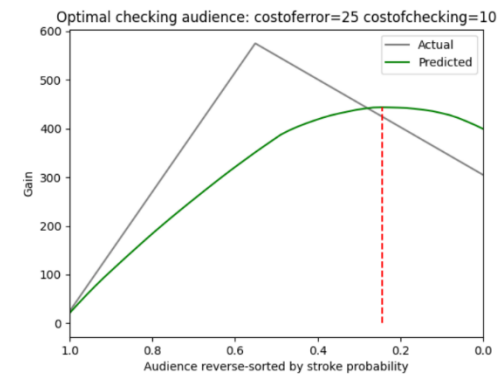
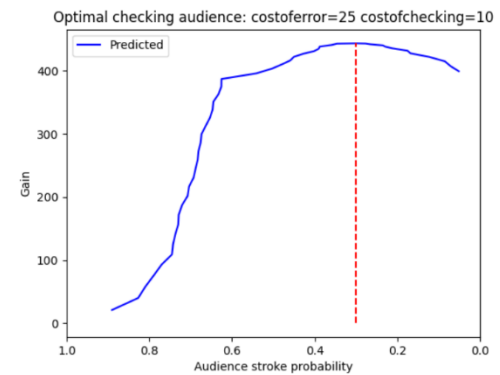
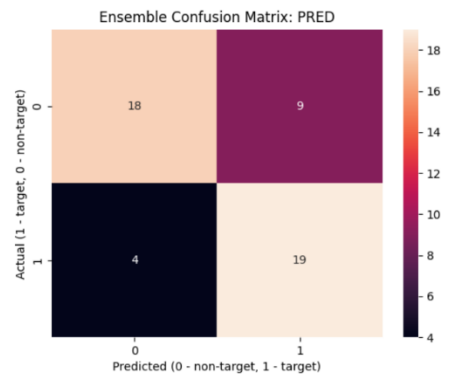
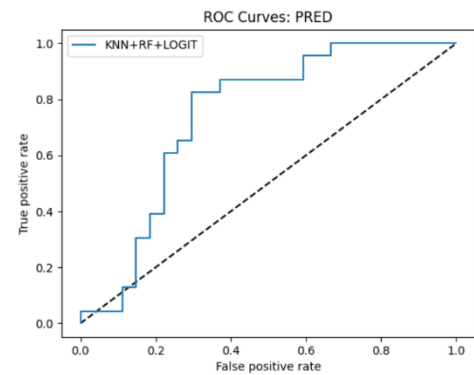
	gender character varying	age double precision	hypertension integer	heart_disease integer	ever_married character varying	work_type character varying	residence_type character varying	avg_glucose_level double precision	bmi double precision	smoking_status character varying	stroke integer	prediction double prec
1	Female	61	0	1	Yes	Govt_Job	Rural	120.46	36.8	smokes	1	0.79766
2	Male	60	1	0	Yes	Govt_Job	Urban	213.03	20.2	smokes	1	0.45039
3	Male	61	0	1	Yes	Private	Rural	111.81	27.3	smokes	1	0.78500
4	Female	77	0	0	Yes	Govt_Job	Rural	190.32	31.4	never smoked	1	0.406125
5	Female	54	0	0	Yes	Self-employed	Rural	191.82	40.4	smokes	1	0.24938
6	Female	45	0	0	Yes	Private	Rural	224.1	56.6	never smoked	1	0.450421
7	Male	80	0	0	Yes	Private	Rural	259.63	31.7	smokes	1	0.428965
8	Male	76	1	0	Yes	Self-employed	Rural	194.37	27	formerly smoked	1	0.55721
9	Male	68	0	0	Yes	Self-employed	Urban	77.82	27.5	smokes	1	0.30128
10	Female	50	0	0	Yes	Private	Rural			smokes	1	0.270581
11	Female	57	0	0	Yes	Private	Urban			smokes	1	0.83529
12	Female	81	1	0	Yes	Self-employed	Rural			er smoked	1	0.57274
13	Female									erly smoked	1	0.83068
14	Male									smokes	1	0.37013
15	Female									smokes	1	0.76067
16	Male									known	1	0.95144
17	Female									er smoked	1	0.69915
18	Female									er smoked	1	0.84744
										smokes	1	0.85460
										er smoked	1	0.8311
										er smoked	1	0.91937
Ln 1, Col 1												
	smoking_status acter varying									stroke integer		
	erly smoked										1	
	r smoked										1	
	r smoked										1	
	smokes										1	
	er smoked										1	
	erly smoked										1	
	er smoked										1	
	never smoked										1	
	Unknown										1	
	Unknown										1	
	never smoked										1	
	smokes										1	
	Unknown										1	
	never smoked										1	
	never smoked										1	
	smokes										1	
	smokes										1	
	Unknown										1	
	never smoked										1	
	Unknown										1	
	smokes										1	
Ln 2, Col 1												
Total rows: 3000 of 5110    Query complete 00:00:00.154    Rows selected: 1												



jBPM

PostgreSQL: original unsplit data

- Response ID: 343
- Response code: 201



OpenEMR

localhost:18080/OpenEMR-7.0.2/interface/main/ta...

Calendar Finder Flow Recalls Messages Patient Fees Modules Procedures Admin Reports Miscellaneous Popups

Patient 9046 (NA) ×

DOB: 0000-00-00 Age: 2025

Select Encounter (0)

Calendar Message Center Patient Finder Dashboard

Stroke Risk

- Response ID:
- Response code:
- Known risk:
- Predicted risk:

Parameters: Stroke Risk

Medical Record Dashboard - Patient Male 9046 67

Dashboard History Report Documents Transactions Issues Ledger External Data

Allergies Medical Problems

click

OpenEMR

localhost:18080/OpenEMR-7.0.2/interface/main/ta...

Calendar Finder Flow Recalls Messages Patient Fees Modules Procedures Admin Reports Miscellaneous Popups

Patient 9046 (NA) ×

DOB: 0000-00-00 Age: 2025

Select Encounter (0)

Calendar Message Center Patient Finder Dashboard

Stroke Risk

- Response ID: 729
- Response code: 201
- Known risk: 1
- Predicted risk: 0.9246

Parameters: Stroke Risk

Medical Record Dashboard - Patient Male 9046 67

Dashboard History Report Documents Transactions Issues Ledger External Data

Allergies Medical Problems

Business Central

localhost:8080/business-central/kie-wb.jsp#ProcessInstances...

Accueil > Gérer les instances de processus

Filtres

État

Actif

Abandonné

Terminé

En attente

Suspendu

Gérer

Instances de processus

Filtres actifs: État: Terminé

ID	Nom	Description
729	stroke-act	stroke-act

jBPM: callout processed

Business Central

localhost:8080/business-central/kie-wb.jsp#ProcessInstances...

Accueil > Gérer les instances de processus > Instance de processus : 729

729 - stroke-act

Détails de l'instance

Variables de processus

Documents

Journaux

Diagramme

Nom	Valeur	Type	Dern
path	C:/xampp/htdocs/OpenEMR-7.0.2/interface/...		16-fé
predfrac	0.9		16-fé
prediction00	0.9246		16-fé

jBPM: result returned

OpenEMR

localhost:18080/OpenEMR-7.0.2/interface/main/tabs/main.php?token\_main=hgcF5PT67RQ6FJ6Oz9fRtkymMjR2trzfZ4pLqGrb

Calendar Finder Flow Recalls Messages Patient Fees Modules Procedures Admin Reports Miscellaneous Popups

Patient 9046 (NA) ×  
DOB: 0000-00-00 Age: 2025

Calendar Message Center Dashboard jBPM Generic Callout

### Health AI Solution Catalog

▼ Stroke Prediction

Stroke Risk

- Response ID: 763
- Response code: 201
- Known risk: 1
- Predicted risk: 0.9202

Parameters

Medical Record Dashboard - Patient Male 9046 67

predict request

predict response

OpenEMR

localhost:18080/OpenEMR-7.0.2/interface/main/tabs/main.php?token\_main=hgcF5PT67RQ6FJ6Oz9fRtkymMjR2trzfZ4pLqGrb

Calendar Finder Flow Recalls Messages Patient Fees Modules Procedures Admin Reports Miscellaneous Popups

Calendar Message Center Patient Finder Dashboard jBPM Generic Callout

### Health AI Solution Catalog

▼ Stroke Prediction

Train/Validate/Test

- Response ID: 761
- Response code: 201
- Test accuracy: 0.86
- Test TPR: 0.8519
- Test TNR: 0.8696
- Test PPV: 0.8846
- Test NPV: 0.8333

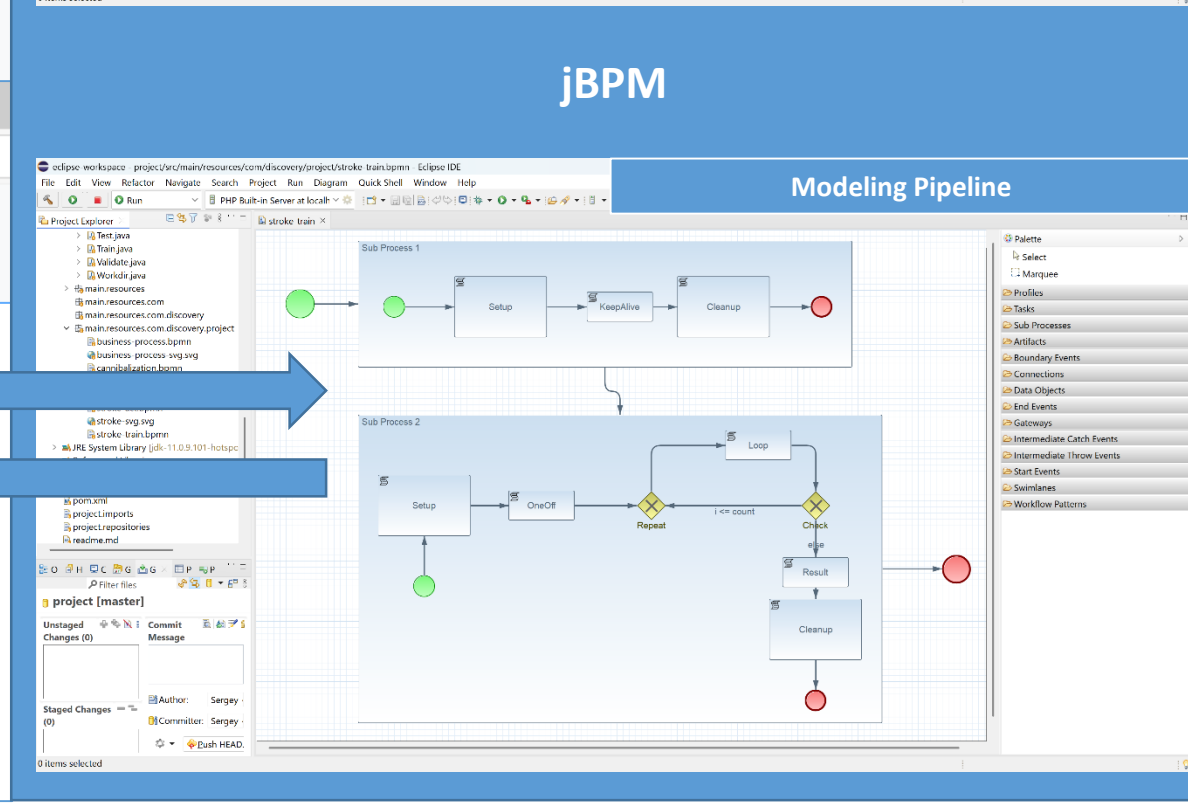
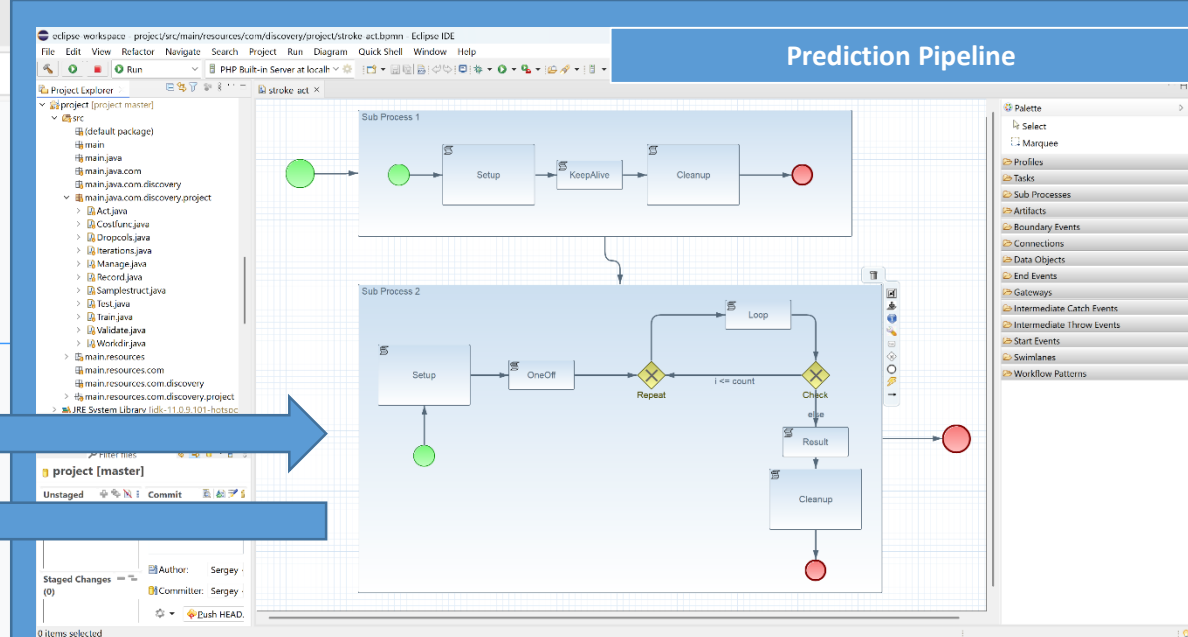
ROC Curves: PRED

Ensemble Confusion Matrix: PRED

Optimal checking audience: costoferror=25.0 costofchecking=10.0

train/validate/test request

train/validate/test response





OpenEMR

Non sécurisé | 192.168.1.139:18080/OpenEMR-7.0.2/interface/main/tabs/main.php?token\_main=D7

Calendar Finder Flow Recalls Messages Patient Fees Modules Procedures Admin Reports Miscellaneous

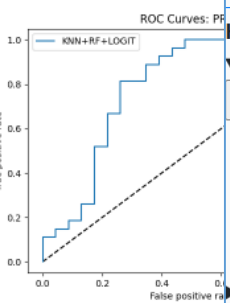
Calendar Message Center jBPM Generic Callout

Health AI Solution Catalog

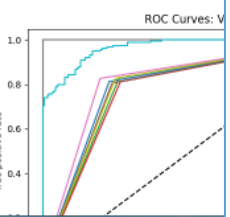
Stroke Prediction

Train/Validate/Test

- Response ID: 939
- Response code: 201
- Test accuracy: 0.82
- Test TPR: 0.8
- Test TNR: 0.85
- Test PPV: 0.8889
- Test NPV: 0.7391



ROC Curves: PP  
True positive rate  
False positive rate  
KNN+RF+LOGIT



ROC Curves: V  
True positive rate  
False positive rate

Calendar Finder Flow Recalls Messages Patient Fees Procedures Reports M

NA NA (NA) ×

DOB: 0000-00-00 Age: 2025

Calendar Message Center Patient Finder Dashboard

Health AI Solution Catalog

Stroke Prediction

Stroke Risk

- Response ID: 938
- Response code: 201
- Known risk: 1
- Predicted risk: 0.8053

Parameters

Dashboard History

Allergies

Nothing Recorded

Prescriptions

None

Billing

Demographics

Business Central

Accueil > Gérer les instances de processus

Accueil

Gérer Instances de processus

Filtres actifs: État: Terminé

<input type="checkbox"/>	ID	Nom	Description
<input type="checkbox"/>	939	train	stroke-train
<input type="checkbox"/>	938	predict	stroke-act
<input type="checkbox"/>	937	stroke-act	stroke-act
<input type="checkbox"/>	936	predict	stroke-act
<input type="checkbox"/>	935	stroke-act	stroke-act
<input type="checkbox"/>	934	stroke-act	stroke-act
<input type="checkbox"/>	933	stroke-act	stroke-act
<input type="checkbox"/>	932	stroke-act	stroke-act
<input type="checkbox"/>	931	stroke-act	stroke-act
<input type="checkbox"/>	930	stroke-act	stroke-act

OpenEMR: TESTER 1

any demogra

Tester 01

Settings

Change Password

OpenEMR: TESTER 2

Search by any demograph

Tester 02

Settings

Change Password

MFA Management

About OpenEMR

OpenEMR: TESTER 3

Search by any demograph

Tester 03

Settings

Change Password

MFA Management

About OpenEMR

Logout

