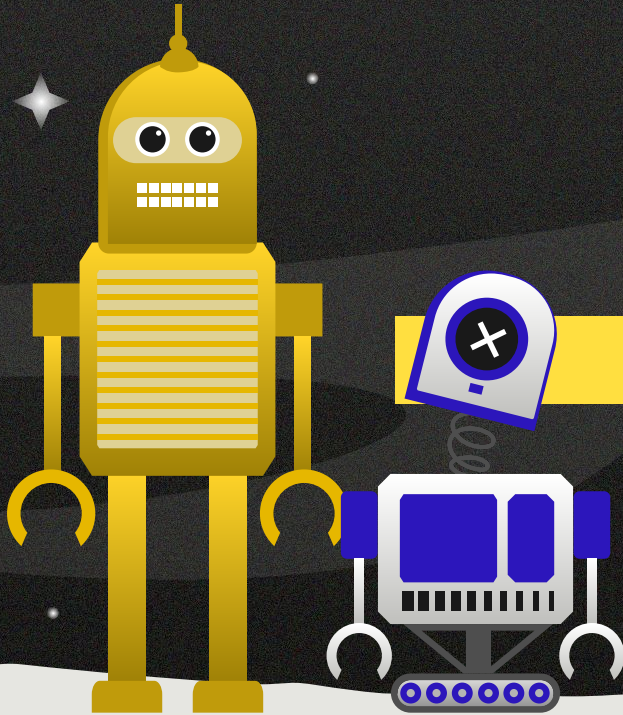


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QUIZ 2

SPACE WARS

Error!!! 404 not found



MEMBERS

Anuwat Malinee
6310422036

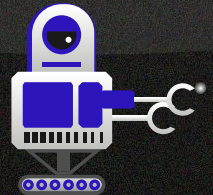
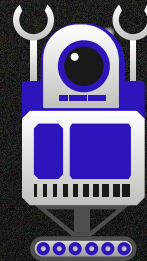
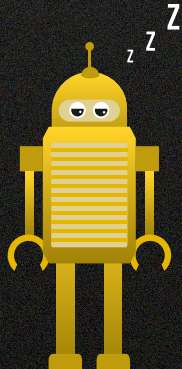
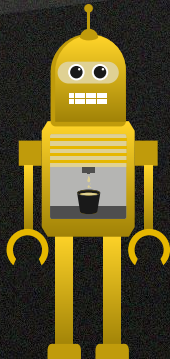
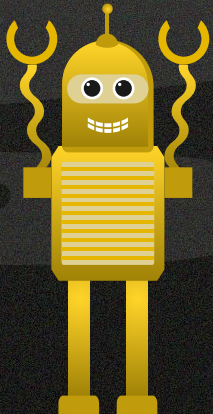
Ruetinan Hanprasopwat
6310422033

Weerasak Karoon
6310422046

Athittaya Sriaram
6310422045

Peeranut Chuasuai
6310422042

Varattaya Rojanarachneekorn
6310422044



PROCESS FLOW

01

QUESTIONNAIRE

02

PLAY GAME

Generate train data set

03

TRAIN MODEL

Use data from playing game for
training model : River

04

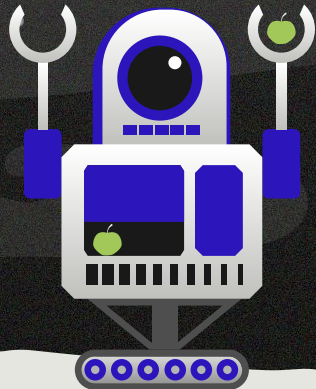
USE NEW MODEL

Add new model into game and
play again

05

COMPARE

Compare the result

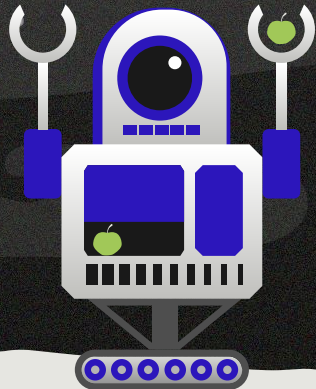


EXAMPLE DATA

train_all.csv - Notepad

File Edit Format View Help

```
335.6741573,374.7640449,26,46,51,5,6,108,88,76,56
346.8333333,385.8717949,27,40,47,7,5,103,71,65,52
371.46875,395.75625,26,44,50,6,6,94,63,74,56
300.609589,409.7534247,21,44,49,5,5,94,54,68,46
415.1015625,426.671875,18,43,45,2,5,69,46,67,43
353.0984848,387.5,23,57,61,4,5,73,61,82,48
373.0116279,394.3139535,14,26,28,2,3,40,28,41,29
374.9027778,394.2222222,21,44,50,6,5,80,61,69,46
394.9533333,360.78,29,44,48,4,5,91,61,69,54
431.9237288,368.1271186,23,37,39,2,4,53,47,57,43
321.3835616,415.0753425,25,45,49,4,5,82,65,70,50
365.5206186,423.3917526,26,68,74,6,7,133,97,103,61
341.225,267.425,11,8,8,0,2,24,17,18,21
385.2846154,379.8076923,26,45,54,9,5,69,60,70,51
423.75,419.5406977,24,69,77,8,6,120,80,98,54
387.6777778,363.4444444,17,37,41,4,3,43,39,51,32
385.1898734,421.7088608,19,65,71,6,6,96,58,95,49
434.6166667,277.6333333,11,22,27,5,2,32,24,32,21
345.5373134,388.5671642,23,48,54,6,5,71,55,73,48
395.5512821,347.4102564,17,29,32,3,3,45,29,44,32
443.8988095,412.2083333,26,76,78,2,6,102,62,106,56
387.075,303.65,11,8,9,1,2,18,15,18,21
351.462963,378.8240741,21,42,45,3,4,66,40,62,41
336.6918605,397.2034884,19,67,72,5,6,100,69,97,49
367.3109756,349.347561,31,62,65,3,6,111,73,92,61
407.8897059,406.4558824,17,60,64,4,5,91,51,85,42
374.0666667,353.9,16,27,33,6,3,43,41,42,31
```



FEATURES SELECTION

A2 : QTY of coin collected

A3 : QTY of enemy destroyed

A4 : Number of shots

A6 : Level reached

A7 : Key X pressed count

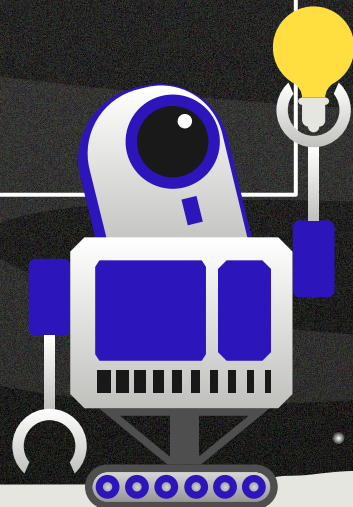
A8 : Key Y pressed count

A9 : Number of enemy created

A10 : Number of coin created

NOTES

Percentage of $(A2/A10)$ and $(A3/A9)$



TRAIN MODEL

Clustering by STREAMKMeans

```
In [134]: from river import cluster
          from river import stream
          from river import tree
          from river import evaluate
          from river import metrics

          streamkmeans = cluster.STREAMKMeans(n_clusters=4, halflife=0.5, sigma=1.5, seed=0)
```

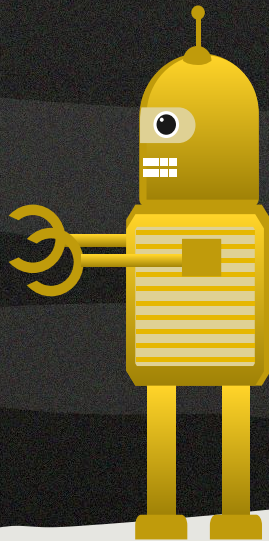
Predictor by HoeffdingAdaptiveTreeClassifier

```
In [139]: model = tree.HoeffdingAdaptiveTreeClassifier(
          |     grace_period=100,
          |     split_confidence=1e-5,
          |     leaf_prediction='nb',
          |     nb_threshold=10,
          |     seed=0
          | )
```

```
In [140]: for x in list(df.iterrows()):
          |     data = {}
          |     for y in range(x[1].size-1):
          |         data[y] = x[1][y]
          |     model.learn_one(data, x[1][-1])
```

```
In [149]: joblib.dump(model, 'model2.h5')|
```

```
Out[149]: ['model2.h5']
```

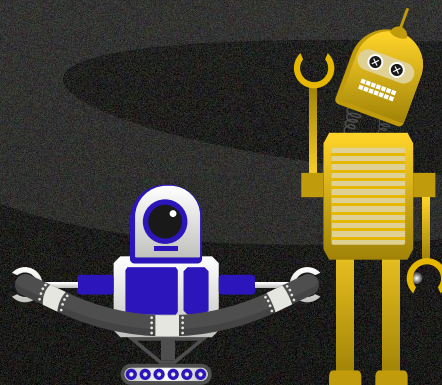
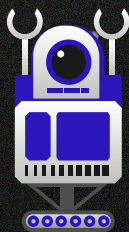
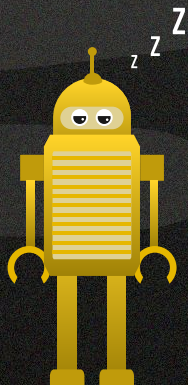


QUESTIONNAIRE VS ML

NAME	QUESTIONNAIRE	TRADITIONAL ML	RIVER
Anuwat	Casual Killer	Casual Achiever	Hardcore Killer
Athittaya	Hardcore Killer	Hardcore Achiever	Hardcore Killer
Ruetinan	Hardcore Achiever	Hardcore Achiever	Hardcore Killer
Varattaya	Hardcore Killer	Hardcore Achiever	Hardcore Killer
Peeranut	Hardcore Achiever	Hardcore Killer	Casual Achiever
Weerasak	Casual Killer	Casual Killer	Casual Achiever

DEMO : SHOW SKILLS IN GAME..

THANK YOU
FOR LISTENING



THANKS! THANKS!

Do you have any questions?

youremail@freepik.com

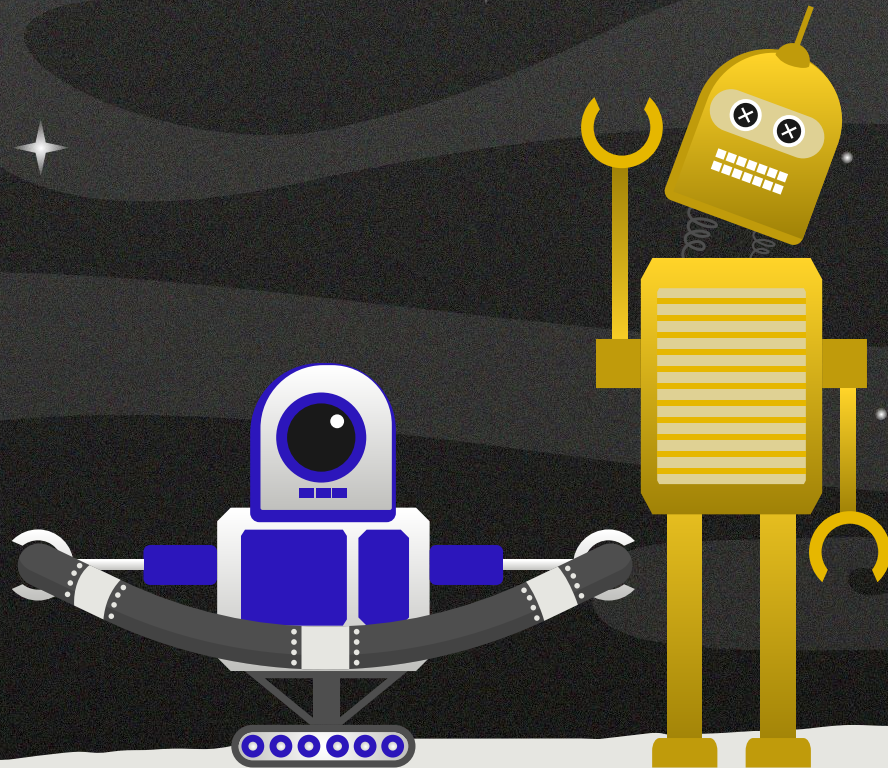
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QUESTIONNAIRE

name	PT	Achiever or killer	GD	Casual or Hardcore
Jap	16	Killer	56.5	Hardcore
bally	10	Achiever	77.25	Ultra hardcore - 'obsessive'
mud	15	Killer	50.25	casual
Wk	14	Killer	50.25	Transitional / Moderate
yung	17	Killer	57.5	Hardcore
fun	11	achiever	61.75	hardcore