C:\Users\guzma\anaconda3\envs\DeepLearningEnv\python.exe "C:/Users/guzma/Desktop/New folder/DRL-automated-stock-trading/run\_DRL.py"

WARNING:tensorflow:

The TensorFlow contrib module will not be included in TensorFlow 2.0.

For more information, please see:

\* https://github.com/tensorflow/community/blob/master/rfcs/20180907-contrib-sunset.md

\* https://github.com/tensorflow/addons

\* https://github.com/tensorflow/io (for I/O related ops)

If you depend on functionality not listed there, please file an issue.

============Start Ensemble Strategy============

============================================

======Model training from: 20090000 to 20151002

======A2C Training========

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\tf\_util.py:191: The name tf.ConfigProto is deprecated. Please use tf.compat.v1.ConfigProto instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\tf\_util.py:200: The name tf.Session is deprecated. Please use tf.compat.v1.Session instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\policies.py:116: The name tf.variable\_scope is deprecated. Please use tf.compat.v1.variable\_scope instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\input.py:25: The name tf.placeholder is deprecated. Please use tf.compat.v1.placeholder instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\policies.py:561: flatten (from tensorflow.python.layers.core) is deprecated and will be removed in a future version.

Instructions for updating:

Use keras.layers.flatten instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\tensorflow\_core\python\layers\core.py:332: Layer.apply (from tensorflow.python.keras.engine.base\_layer) is deprecated and will be removed in a future version.

Instructions for updating:

Please use `layer.\_\_call\_\_` method instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\tf\_layers.py:123: The name tf.get\_variable is deprecated. Please use tf.compat.v1.get\_variable instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\distributions.py:418: The name tf.random\_normal is deprecated. Please use tf.random.normal instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\a2c\a2c.py:160: The name tf.summary.scalar is deprecated. Please use tf.compat.v1.summary.scalar instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\tf\_util.py:449: The name tf.get\_collection is deprecated. Please use tf.compat.v1.get\_collection instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\tf\_util.py:449: The name tf.GraphKeys is deprecated. Please use tf.compat.v1.GraphKeys instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\tensorflow\_core\python\ops\clip\_ops.py:301: where (from tensorflow.python.ops.array\_ops) is deprecated and will be removed in a future version.

Instructions for updating:

Use tf.where in 2.0, which has the same broadcast rule as np.where

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\a2c\a2c.py:184: The name tf.train.RMSPropOptimizer is deprecated. Please use tf.compat.v1.train.RMSPropOptimizer instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\tensorflow\_core\python\training\rmsprop.py:119: calling Ones.\_\_init\_\_ (from tensorflow.python.ops.init\_ops) with dtype is deprecated and will be removed in a future version.

Instructions for updating:

Call initializer instance with the dtype argument instead of passing it to the constructor

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\a2c\a2c.py:194: The name tf.global\_variables\_initializer is deprecated. Please use tf.compat.v1.global\_variables\_initializer instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\a2c\a2c.py:196: The name tf.summary.merge\_all is deprecated. Please use tf.compat.v1.summary.merge\_all instead.

Training time (A2C): 0.7118060151735942 minutes

======A2C Validation from: 20151002 to 20160104

A2C Sharpe Ratio: -0.24010085242338725

======PPO Training========

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\ppo2\ppo2.py:198: The name tf.trainable\_variables is deprecated. Please use tf.compat.v1.trainable\_variables instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\ppo2\ppo2.py:206: The name tf.train.AdamOptimizer is deprecated. Please use tf.compat.v1.train.AdamOptimizer instead.

Training time (PPO): 2.304391098022461 minutes

======PPO Validation from: 20151002 to 20160104

PPO Sharpe Ratio: -0.2495315751292801

======DDPG Training========

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\ddpg\policies.py:136: dense (from tensorflow.python.layers.core) is deprecated and will be removed in a future version.

Instructions for updating:

Use keras.layers.Dense instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\ddpg\ddpg.py:94: The name tf.assign is deprecated. Please use tf.compat.v1.assign instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\ddpg\ddpg.py:444: The name tf.global\_variables is deprecated. Please use tf.compat.v1.global\_variables instead.

WARNING:tensorflow:From C:\Users\guzma\anaconda3\envs\DeepLearningEnv\lib\site-packages\stable\_baselines\common\tf\_util.py:432: The name tf.get\_default\_session is deprecated. Please use tf.compat.v1.get\_default\_session instead.

Training time (DDPG): 0.4550237894058228 minutes

======DDPG Validation from: 20151002 to 20160104

======Trading from: 20160104 to 20160405

previous\_total\_asset:1000000

end\_total\_asset:1014524.041

total\_reward:14524.040999999968

total\_cost: 360.95899999999995

total trades: 62

Sharpe: 0.18701260052477048

============================================

======Model training from: 20090000 to 20160104

======A2C Training========

Training time (A2C): 0.6672371586163839 minutes

======A2C Validation from: 20160104 to 20160405

A2C Sharpe Ratio: 0.14254321267169265

======PPO Training========

Training time (PPO): 2.2265103141466778 minutes

======PPO Validation from: 20160104 to 20160405

PPO Sharpe Ratio: 0.3768793010528907

======DDPG Training========

Training time (DDPG): 0.4579093098640442 minutes

======DDPG Validation from: 20160104 to 20160405

======Trading from: 20160405 to 20160705

previous\_total\_asset:1014524.041

end\_total\_asset:1008322.4143031985

total\_reward:-6201.626696801512

total\_cost: 271.72389702832226

total trades: 62

Sharpe: -0.022612962688978555

============================================

======Model training from: 20090000 to 20160405

======A2C Training========

Training time (A2C): 0.669822359085083 minutes

======A2C Validation from: 20160405 to 20160705

A2C Sharpe Ratio: -0.13837445304014

======PPO Training========

Training time (PPO): 2.296270287036896 minutes

======PPO Validation from: 20160405 to 20160705

PPO Sharpe Ratio: -0.2346543648444276

======DDPG Training========

Training time (DDPG): 0.45918506383895874 minutes

======DDPG Validation from: 20160405 to 20160705

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

======Trading from: 20160705 to 20161003

previous\_total\_asset:1008322.4143031985

end\_total\_asset:1035603.1850009661

total\_reward:27280.770697767613

total\_cost: 398.6872483851624

total trades: 62

Sharpe: 0.2754011077340372

============================================

======Model training from: 20090000 to 20160705

======A2C Training========

Training time (A2C): 0.6344252864519755 minutes

======A2C Validation from: 20160705 to 20161003

A2C Sharpe Ratio: 0.1671385920789661

======PPO Training========

Training time (PPO): 2.193613576889038 minutes

======PPO Validation from: 20160705 to 20161003

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

PPO Sharpe Ratio: nan

======DDPG Training========

Training time (DDPG): 0.4912084976832072 minutes

======DDPG Validation from: 20160705 to 20161003

======Trading from: 20161003 to 20170103

previous\_total\_asset:1035603.1850009661

end\_total\_asset:1081511.9937234009

total\_reward:45908.8087224348

total\_cost: 428.7218682521057

total trades: 62

Sharpe: 0.3728840721341235

============================================

======Model training from: 20090000 to 20161003

======A2C Training========

Training time (A2C): 0.7028387705485026 minutes

======A2C Validation from: 20161003 to 20170103

A2C Sharpe Ratio: -0.017649898471662002

======PPO Training========

Training time (PPO): 2.3011337836583454 minutes

======PPO Validation from: 20161003 to 20170103

PPO Sharpe Ratio: 0.3678952690034477

======DDPG Training========

Training time (DDPG): 0.4641209562619527 minutes

======DDPG Validation from: 20161003 to 20170103

======Trading from: 20170103 to 20170404

previous\_total\_asset:1081511.9937234009

end\_total\_asset:1118627.4621803102

total\_reward:37115.46845690929

total\_cost: 484.70776093765255

total trades: 62

Sharpe: 0.17281588946894416

============================================

======Model training from: 20090000 to 20170103

======A2C Training========

Training time (A2C): 0.7329177737236023 minutes

======A2C Validation from: 20170103 to 20170404

A2C Sharpe Ratio: 0.05909211803612434

======PPO Training========

Training time (PPO): 2.241360243161519 minutes

======PPO Validation from: 20170103 to 20170404

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

PPO Sharpe Ratio: nan

======DDPG Training========

Training time (DDPG): 0.487420125802358 minutes

======DDPG Validation from: 20170103 to 20170404

======Trading from: 20170404 to 20170705

previous\_total\_asset:1118627.4621803102

end\_total\_asset:1211435.500353768

total\_reward:92808.03817345784

total\_cost: 20.510960000000004

total trades: 62

Sharpe: 0.26016019209789354

============================================

======Model training from: 20090000 to 20170404

======A2C Training========

Training time (A2C): 0.7173392573992411 minutes

======A2C Validation from: 20170404 to 20170705

A2C Sharpe Ratio: 0.572707037426186

======PPO Training========

Training time (PPO): 2.3204575697580974 minutes

======PPO Validation from: 20170404 to 20170705

PPO Sharpe Ratio: -0.2776269201168938

======DDPG Training========

Training time (DDPG): 0.47822916905085244 minutes

======DDPG Validation from: 20170404 to 20170705

======Trading from: 20170705 to 20171003

previous\_total\_asset:1211435.500353768

end\_total\_asset:1288874.309092019

total\_reward:77438.80873825098

total\_cost: 0.0

total trades: 62

Sharpe: 0.28418849370002874

============================================

======Model training from: 20090000 to 20170705

======A2C Training========

Training time (A2C): 0.6712589502334595 minutes

======A2C Validation from: 20170705 to 20171003

A2C Sharpe Ratio: 0.4002990274747532

======PPO Training========

Training time (PPO): 2.277890602747599 minutes

======PPO Validation from: 20170705 to 20171003

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

PPO Sharpe Ratio: nan

======DDPG Training========

Training time (DDPG): 0.508440105120341 minutes

======DDPG Validation from: 20170705 to 20171003

======Trading from: 20171003 to 20180103

previous\_total\_asset:1288874.309092019

end\_total\_asset:1406149.8526628027

total\_reward:117275.54357078369

total\_cost: 122.13576157975434

total trades: 62

Sharpe: 0.40191541841432193

============================================

======Model training from: 20090000 to 20171003

======A2C Training========

Training time (A2C): 0.7028085192044576 minutes

======A2C Validation from: 20171003 to 20180103

A2C Sharpe Ratio: 0.18420962851279116

======PPO Training========

Training time (PPO): 2.323631493250529 minutes

======PPO Validation from: 20171003 to 20180103

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

PPO Sharpe Ratio: nan

======DDPG Training========

Training time (DDPG): 0.472053865591685 minutes

======DDPG Validation from: 20171003 to 20180103

======Trading from: 20180103 to 20180405

previous\_total\_asset:1406149.8526628027

end\_total\_asset:1328712.4604716671

total\_reward:-77437.39219113556

total\_cost: 75.76141

total trades: 62

Sharpe: -0.08526730583145391

============================================

======Model training from: 20090000 to 20180103

======A2C Training========

Training time (A2C): 0.7121506134668986 minutes

======A2C Validation from: 20180103 to 20180405

A2C Sharpe Ratio: -0.10422560463383967

======PPO Training========

Training time (PPO): 2.4126524964968366 minutes

======PPO Validation from: 20180103 to 20180405

PPO Sharpe Ratio: -0.09950105568815296

======DDPG Training========

Training time (DDPG): 0.46373417774836223 minutes

======DDPG Validation from: 20180103 to 20180405

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

======Trading from: 20180405 to 20180705

previous\_total\_asset:1328712.4604716671

end\_total\_asset:1393039.4816535662

total\_reward:64327.02118189912

total\_cost: 611.0617743675995

total trades: 62

Sharpe: 0.13817397105473236

============================================

======Model training from: 20090000 to 20180405

======A2C Training========

Training time (A2C): 0.9786968469619751 minutes

======A2C Validation from: 20180405 to 20180705

A2C Sharpe Ratio: -0.01572344162796092

======PPO Training========

Training time (PPO): 2.7138179262479145 minutes

======PPO Validation from: 20180405 to 20180705

PPO Sharpe Ratio: 0.287236976168761

======DDPG Training========

Training time (DDPG): 0.5972586353619893 minutes

======DDPG Validation from: 20180405 to 20180705

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

======Trading from: 20180705 to 20181003

previous\_total\_asset:1393039.4816535662

end\_total\_asset:1475792.7445526966

total\_reward:82753.26289913035

total\_cost: 39.91598414035798

total trades: 62

Sharpe: 0.3560018033157294

============================================

======Model training from: 20090000 to 20180705

======A2C Training========

Training time (A2C): 0.7526392261187236 minutes

======A2C Validation from: 20180705 to 20181003

A2C Sharpe Ratio: -0.06010687156386993

======PPO Training========

Training time (PPO): 2.760262890656789 minutes

======PPO Validation from: 20180705 to 20181003

PPO Sharpe Ratio: 0.2512961453116029

======DDPG Training========

Training time (DDPG): 0.564151668548584 minutes

======DDPG Validation from: 20180705 to 20181003

======Trading from: 20181003 to 20190104

previous\_total\_asset:1475792.7445526966

end\_total\_asset:1293371.6709772802

total\_reward:-182421.07357541635

total\_cost: 647.116

total trades: 62

Sharpe: -0.25679685135704927

============================================

======Model training from: 20090000 to 20181003

======A2C Training========

Training time (A2C): 0.7869409362475077 minutes

======A2C Validation from: 20181003 to 20190104

A2C Sharpe Ratio: -0.2451221461737468

======PPO Training========

Training time (PPO): 3.1097361048062644 minutes

======PPO Validation from: 20181003 to 20190104

PPO Sharpe Ratio: -0.27454199624068476

======DDPG Training========

Training time (DDPG): 0.535141388575236 minutes

======DDPG Validation from: 20181003 to 20190104

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

======Trading from: 20190104 to 20190405

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

previous\_total\_asset:1293371.6709772802

end\_total\_asset:1518353.6027203102

total\_reward:224981.93174302997

total\_cost: 132.2760304981041

total trades: 62

Sharpe: 0.5420051823577685

============================================

======Model training from: 20090000 to 20190104

======A2C Training========

Training time (A2C): 1.073202391465505 minutes

======A2C Validation from: 20190104 to 20190405

A2C Sharpe Ratio: 0.23596326765857412

======PPO Training========

Training time (PPO): 3.0072383840878802 minutes

======PPO Validation from: 20190104 to 20190405

PPO Sharpe Ratio: 0.21919023660280784

======DDPG Training========

Training time (DDPG): 0.47368245919545493 minutes

======DDPG Validation from: 20190104 to 20190405

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

======Trading from: 20190405 to 20190708

previous\_total\_asset:1518353.6027203102

end\_total\_asset:1700719.1128077144

total\_reward:182365.51008740417

total\_cost: 156.8670079328537

total trades: 62

Sharpe: 0.4501951742030661

============================================

======Model training from: 20090000 to 20190405

======A2C Training========

Training time (A2C): 0.6705800652503967 minutes

======A2C Validation from: 20190405 to 20190708

A2C Sharpe Ratio: -0.5483407940062213

======PPO Training========

Training time (PPO): 2.5316567540168764 minutes

======PPO Validation from: 20190405 to 20190708

PPO Sharpe Ratio: 0.37808554339467243

======DDPG Training========

Training time (DDPG): 0.48319461743036907 minutes

======DDPG Validation from: 20190405 to 20190708

======Trading from: 20190708 to 20191004

previous\_total\_asset:1700719.1128077144

end\_total\_asset:1525044.9099085138

total\_reward:-175674.2028992006

total\_cost: 712.8970620126437

total trades: 62

Sharpe: -0.2554773611358071

============================================

======Model training from: 20090000 to 20190708

======A2C Training========

Training time (A2C): 1.0100807746251423 minutes

======A2C Validation from: 20190708 to 20191004

A2C Sharpe Ratio: 0.064565895097664

======PPO Training========

Training time (PPO): 2.6984439452489215 minutes

======PPO Validation from: 20190708 to 20191004

PPO Sharpe Ratio: -0.34064715417412533

======DDPG Training========

Training time (DDPG): 0.5880578279495239 minutes

======DDPG Validation from: 20190708 to 20191004

======Trading from: 20191004 to 20200106

previous\_total\_asset:1525044.9099085138

end\_total\_asset:1688298.8107154595

total\_reward:163253.90080694575

total\_cost: 0.80087

total trades: 62

Sharpe: 0.34954844275559216

============================================

======Model training from: 20090000 to 20191004

======A2C Training========

Training time (A2C): 0.880694862206777 minutes

======A2C Validation from: 20191004 to 20200106

A2C Sharpe Ratio: 0.23613719319394738

======PPO Training========

Training time (PPO): 2.656700805823008 minutes

======PPO Validation from: 20191004 to 20200106

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

PPO Sharpe Ratio: nan

======DDPG Training========

Training time (DDPG): 0.5860813975334167 minutes

======DDPG Validation from: 20191004 to 20200106

======Trading from: 20200106 to 20200406

previous\_total\_asset:1688298.8107154595

end\_total\_asset:997294.7671891334

total\_reward:-691004.0435263261

total\_cost: 0.06896

total trades: 62

Sharpe: -0.23088491867806119

============================================

======Model training from: 20090000 to 20200106

======A2C Training========

Training time (A2C): 0.7863229950269063 minutes

======A2C Validation from: 20200106 to 20200406

A2C Sharpe Ratio: -0.37433487408683774

======PPO Training========

Training time (PPO): 2.8603395382563273 minutes

======PPO Validation from: 20200106 to 20200406

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\env\EnvMultipleStock\_validation.py:141: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

PPO Sharpe Ratio: nan

======DDPG Training========

C:\Users\guzma\Desktop\New folder\DRL-automated-stock-trading\model\models.py:126: RuntimeWarning: invalid value encountered in double\_scalars

df\_total\_value['daily\_return'].std()

Training time (DDPG): 0.5904009143511454 minutes

======DDPG Validation from: 20200106 to 20200406

======Trading from: 20200406 to 20200707

previous\_total\_asset:997294.7671891334

end\_total\_asset:1308678.0993996076

total\_reward:311383.3322104742

total\_cost: 0.0

total trades: 62

Sharpe: 0.23871717456615843

Ensemble Strategy took: 68.48156748215358 minutes

Process finished with exit code 0