AMAZON FORECAST
FUNZIONI AVANZATE

AGGIORNARE DEI DATASET

METODO UTILIZZATO

In questo nostro corso su Amazon Forecast abbiamo seguito l'approccio indicato in questa slide il quale è suddiviso in 3 passaggi fondamentali. La creazione del dataset, la creazione del predictor e la generazione delle previsioni.

STEP 01

DATASET

Preparazione dei dati storici e correlati con seguente upload in Amazon Forecast

STEP 02

PREDICTOR

Creaziode del nuovo modello con AutoPredictor con I dataset disponibili

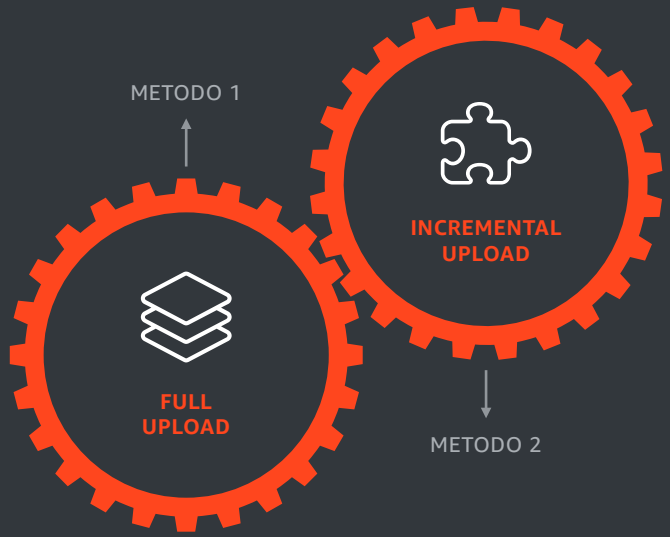
STEP 03

FORECASTS

Generazione delle previsioni utilizzando il predictor creato nel passo precedente

UPLOAD DATASET

Esistono due modi per caricare un dataset in Amazon Forecast. Il metodo FULL che abbiamo usato fino adesso, anche perché è l'unico metodo utilizzato tramite management console AWS e il metodo INCREMENTAL.



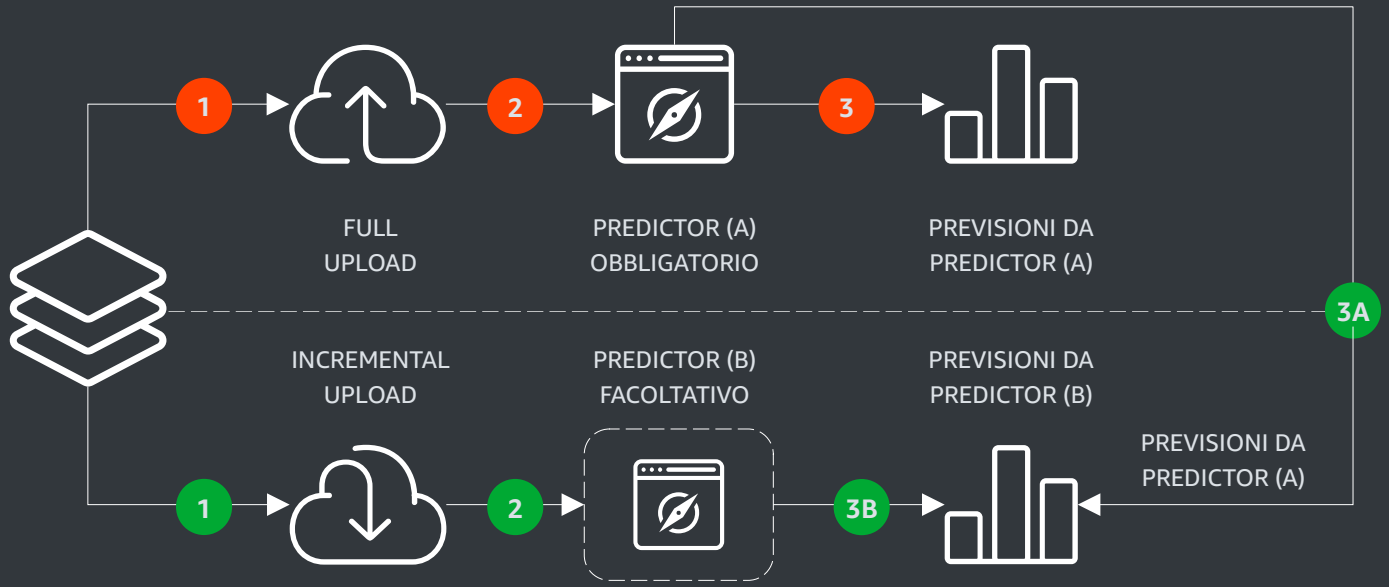
create-dataset-import-job

```
--dataset-import-job-name <value>
--dataset-arn <value>
--data-source <value>

--import-mode FULL|INCREMENTAL
```

CREAZIONE PREDICTOR

Dopo aver creato i dataset con FULL o INCREMENTAL possiamo pensare che comunque dobbiamo rieseguire la creazione del predictor utilizzando i nuovi dataset. In realtà questo non è obbligatorio, vediamo insieme il perché.



Predictor Monitoring

Predictor monitoring allows you to see how your predictor's performance changes over time. A variety of factors can cause performance changes, such as economic developments or changes in your customer's behavior.

For example, consider a forecasting scenario where the target is `sales` and there are two related attributes: `price` and `color`. In the months after creating your first predictor, certain colors might unexpectedly become more popular with your customers. This might drive up sales for items with this attribute. This new data could impact your predictor's performance and the accuracy of the forecasts it generates.

With predictor monitoring enabled, Forecast analyzes your predictor's performance as you generate forecasts and import more data. Forecast compares the new data to the earlier forecasts to detect any changes in performance. You can view graphs of how different accuracy metrics have changed over time

	A	B	C	D	E	F
1	DATASET	FIELD	ENTRIES	UNIQUE	MIN	MAX
2	TARGET	Demand	9.234.126	1.589	0	73.099
3	TARGET	Item_id	9.234.126	10.929	-	-
4	TARGET	Timestamp	9.234.126	1.150	2021-01-02	2024-02-25
5	RELATED	Discount	1.359.553	11	0	60
6	RELATED	Price	1.359.553	441	0	640.70
7	RELATED	Timestamp	1.359.553	168	0	0
8	METADATA	Brand	10.929	344	2020-12-28	2024-03-11
9	METADATA	Line	10.929	8	-	-
10	METADATA	Category	10.929	63	-	-
11	METADATA	Family	10.929	294	-	-
12	METADATA	Item_id	10.929	10.929	-	-
13						
14						

2024

10 11 12 1 2 3 4 5 6 7 8 9

Hoy

dom	lun	mar	mié	jue	vie	sáb
25	26	27	28	29	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

	A	B	C	D	E	F	G
1	item_id	timestamp	demand		item_id	timestamp	demand
2	0000028598	2024-02-26	79		0000031850	2024-02-26	54
3	0000028598	2024-02-27	66		0000031850	2024-02-27	72
4	0000028598	2024-02-28	37		0000031850	2024-02-28	84
5	0000028598	2024-02-29	126		0000031850	2024-02-29	60
6	0000028598	2024-03-01	60		0000031850	2024-03-01	66
7	0000028598	2024-03-02	109		0000031850	2024-03-02	132
8	0000028598	2024-03-03	150		0000031850	2024-03-03	68
9	0000028598	2024-03-04	516		0000031850	2024-03-04	6
10	0000028598	2024-03-05	594		0000031850	2024-03-05	66
11	0000028598	2024-03-06	378		0000031850	2024-03-06	42
12	0000028598	2024-03-07	618		0000031850	2024-03-07	115
13	0000028598	2024-03-08	870		0000031850	2024-03-08	96
14	0000028598	2024-03-09	930		0000031850	2024-03-09	174

```
create-dataset-import-job
  --dataset-import-job-name update_target_with_incremental
  --dataset-arn arn:aws:forecast:eu-west-1:user:dataset/name
  --data-source '{"S3Config":{"Path":"s3://path","RoleArn":"arn:aws"}}'
  --import-mode INCREMENTAL
```

```
create-dataset-import-job
  --dataset-import-job-name update_related_with_incremental
  --dataset-arn arn:aws:forecast:eu-west-1:user:dataset/name
  --data-source '{"S3Config":{"Path":"s3://path","RoleArn":"arn:aws"}}'
  --import-mode INCREMENTAL
```

```
create-dataset-import-job
  --dataset-import-job-name update_metadata_with_incremental
  --dataset-arn arn:aws:forecast:eu-west-1:user:dataset/name
  --data-source '{"S3Config":{"Path":"s3://path","RoleArn":"arn:aws"}}'
  --import-mode INCREMENTAL
```

Forecasts (2) Info

View details | Stop | Delete | Create forecast export | **Create forecast**

Find forecast name

1

	Forecast name	Status	Forecast created	Predictor used
○	MyForecastUpdate	Active	Wed, 13 Mar 2024 22:02:35 GMT	MyPredictorName
○	MyForecastName	Active	Tue, 12 Mar 2024 19:10:08 GMT	MyPredictorName

Forecast details

Forecast name

The name can help you distinguish this forecast from your other forecasts.

MyForecastUpdate

The forecast name must have 1 to 63 characters. Valid characters: a-z, A-Z, 0-9, and _

Forecast details

Forecast type |
Choose the forecast whose forecasts you want to view.

MyForecastUpdate

Start date | Info
This is the start date for the historical

2024/02/19

End date | Info
This is the end date for the forecast that

2024/03/25

Forecast key

item_id

Value

0000028598

Remove key