

JupyterLab

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Name	Last Modified
charting_issues.ipynb	9 minutes ago
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SPM587FA18issues.j...	12 minutes ago
Tutorial #9 - Issues ...	9 days ago

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Python 3

issues_df

[4]:

	Author	State	closed_at	created_at	issue_number	labels
0	QFA18SCM70G	closed	2018-11-19	2018-11-17	356	[Category:Inquiry, DetectionPhase:Field, Origi...
1	AFA18SCM21V	closed	2018-11-17	2018-11-17	354	[Category:Bug, DetectionPhase:Testing, Origina...
2	SFA18SCM75J	closed	2018-11-17	2018-11-17	352	[Category:Bug, DetectionPhase:Testing, Origina...
3	AFA18SCM64A	closed	2018-11-17	2018-11-16	350	[Category:Inquiry, DetectionPhase:Field, Origi...
4	BFA18SCM78Z	closed	2018-11-17	2018-11-16	348	[Category:Inquiry, DetectionPhase:Field, Origi...
5	KFA18SCM64T	closed	2018-11-16	2018-11-16	347	[Category:Inquiry, DetectionPhase:Field, Origi...
6	CFA18SCM71R	closed	2018-11-16	2018-11-16	345	[Category:Enhancement, DetectionPhase:Testing,...
7	AFA18SCM57S	closed	2018-11-17	2018-11-16	343	[Category:Bug, DetectionPhase:Testing, Origina...
8	fazfar	closed	2018-11-16	2018-11-16	340	[Category:Inquiry, DetectionPhase:Field, Origi...
9	PFA18SCM42I	closed	2018-11-16	2018-11-16	336	[Category:Inquiry, DetectionPhase:Field, Origi...
10	PFA18SCM15B	closed	2018-11-16	2018-11-16	335	[Category:Bug, DetectionPhase:Testing, Origina...
11	KFA18SCM06Y	closed	2018-11-16	2018-11-16	334	[Category:Inquiry, DetectionPhase:Field, Origi...
12	AFA18SCM85P	closed	2018-11-16	2018-11-16	333	[Category:Inquiry, DetectionPhase:Field, Origi...
13	MFA18SCM37P	closed	2018-11-16	2018-11-16	329	[Category:Enhancement, DetectionPhase:Testing,...
14	MFA18SCM28T	closed	2018-11-16	2018-11-16	327	[Category:Inquiry, DetectionPhase:Field, Origi...
15	SFA18SCM56H	closed	2018-11-16	2018-11-16	328	[Category:Inquiry, DetectionPhase:Field, Origi...
16	BFA18SCM86S	closed	2018-11-16	2018-11-16	326	[Category:Inquiry, DetectionPhase:Field, Origi...
17	SFA18SCM30D	open	None	2018-11-16	324	[Category:Inquiry, DetectionPhase:Field, Origi...
18	VFA18SCM66J	closed	2018-11-16	2018-11-16	323	[Category:Inquiry, DetectionPhase:Field, Origi...
19	FFA18SCM76B	closed	2018-11-16	2018-11-16	321	[Category : Inquiry, DetectionPhase:Field, Ori...

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Tutorial #9 - Issues ...	9 days ago

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Python 3

180	RFA18SCM33P	closed	2018-11-12	2018-11-12	21	[Address:2301 S Lake Shore Dr Chicago IL 60616...
181	SFA18SCM05P	closed	2018-11-12	2018-11-12	20	[Address:2301 S Lake Shore Dr Chicago IL 60616...
182	SFA18SCM81V	closed	2018-11-12	2018-11-11	19	[Address:10555 E Briarwood Cir Englewood CO 80...
183	AFA18SCM40P	closed	2018-11-12	2018-11-11	18	[Address:10555 E Briarwood Cir Englewood CO 80...
184	RFA18SCM33P	closed	2018-11-14	2018-11-11	17	[Address:2301 S Lake Shore Dr Chicago IL 60616...
185	SPM587FA18	open	None	2018-11-09	16	[Category:Bug, DetectionPhase:Design, Originat...
186	SPM587FA18	open	None	2018-11-09	15	[Category:Bug, DetectionPhase:Design, Originat...
187	SPM587FA18	open	None	2018-11-09	14	[Category:Enhancement, DetectionPhase:Design, ...
188	SPM587FA18	open	None	2018-11-09	13	[Category:Bug, DetectionPhase:Design, Originat...
189	SPM587FA18	open	None	2018-11-09	12	[Category:Inquiry, DetectionPhase:Field, Origi...
190	SPM587FA18	open	None	2018-11-09	11	[Category:Bug, DetectionPhase:Field, Originati...
191	SPM587FA18	open	None	2018-11-09	10	[Category:Bug, DetectionPhase:Design, Originat...
192	SPM587FA18	open	None	2018-11-09	9	[Category:Bug, DetectionPhase:Design, Originat...
193	SPM587FA18	open	None	2018-11-09	8	[Category:Inquiry, DetectionPhase:Field, Origi...
194	SPM587FA18	open	None	2018-11-09	7	[Category:Enhancement, DetectionPhase:Field, O...
195	SPM587FA18	open	None	2018-11-09	5	[Category:Bug, DetectionPhase:Design, Originat...

196 rows x 6 columns

[5]: # Prepare and Clean the dataframe object

wrangled_issues_df = issues_df[['Author','State','closed_at','created_at','issue_number','labels']]
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'OriginationPhase'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'DetectionPhase'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'Category'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'Priority'] = np.NaN

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Python 3

```
[5]: # Prepare and Clean the dataframe object

wrangled_issues_df = issues_df[['Author','State','closed_at','created_at','issue_number','labels']]
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'OriginationPhase'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'DetectionPhase'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'Category'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'Priority'] = np.NaN
wrangled_issues_df.loc[0:len(wrangled_issues_df), 'Status'] = np.NaN

[6]: wrangled_issues_df

[6]:
```

	Author	State	closed_at	created_at	issue_number	labels	OriginationPhase	DetectionPhase	Category	Priority	Status
0	QFA18SCM70G	closed	2018-11-19	2018-11-17	356	[Category:Inquiry, DetectionPhase:Field, Ori...	NaN	NaN	NaN	NaN	NaN
1	AFA18SCM21V	closed	2018-11-17	2018-11-17	354	[Category:Bug, DetectionPhase:Testing, Origina...	NaN	NaN	NaN	NaN	NaN
2	SFA18SCM75J	closed	2018-11-17	2018-11-17	352	[Category:Bug, DetectionPhase:Testing, Origina...	NaN	NaN	NaN	NaN	NaN
3	AFA18SCM64A	closed	2018-11-17	2018-11-16	350	[Category:Inquiry, DetectionPhase:Field, Ori...	NaN	NaN	NaN	NaN	NaN
4	BFA18SCM78Z	closed	2018-11-17	2018-11-16	348	[Category:Inquiry, DetectionPhase:Field, Ori...	NaN	NaN	NaN	NaN	NaN
5	KFA18SCM64T	closed	2018-11-16	2018-11-16	347	[Category:Inquiry, DetectionPhase:Field, Ori...	NaN	NaN	NaN	NaN	NaN
6	CFA18SCM71R	closed	2018-11-16	2018-11-16	345	[Category:Enhancement, DetectionPhase:Testing,...	NaN	NaN	NaN	NaN	NaN
7	AFA18SCM57S	closed	2018-11-17	2018-11-16	343	[Category:Bug, DetectionPhase:Testing, Origina...	NaN	NaN	NaN	NaN	NaN
8	fazfar	closed	2018-11-16	2018-11-16	340	[Category:Inquiry, DetectionPhase:Field, Ori...	NaN	NaN	NaN	NaN	NaN

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Python 3

185	SPM587FA18	open	None	2018-11-09	16	[Category:Bug, DetectionPhase:Design, Originat...	NaN	NaN	NaN	NaN	NaN
186	SPM587FA18	open	None	2018-11-09	15	[Category:Bug, DetectionPhase:Design, Originat...	NaN	NaN	NaN	NaN	NaN
187	SPM587FA18	open	None	2018-11-09	14	[Category:Enhancement, DetectionPhase:Design, ...	NaN	NaN	NaN	NaN	NaN
188	SPM587FA18	open	None	2018-11-09	13	[Category:Bug, DetectionPhase:Design, Originat...	NaN	NaN	NaN	NaN	NaN
189	SPM587FA18	open	None	2018-11-09	12	[Category:Inquiry, DetectionPhase:Field, Origi...	NaN	NaN	NaN	NaN	NaN
190	SPM587FA18	open	None	2018-11-09	11	[Category:Bug, DetectionPhase:Field, Originati...	NaN	NaN	NaN	NaN	NaN
191	SPM587FA18	open	None	2018-11-09	10	[Category:Bug, DetectionPhase:Design, Originat...	NaN	NaN	NaN	NaN	NaN
192	SPM587FA18	open	None	2018-11-09	9	[Category:Bug, DetectionPhase:Design, Originat...	NaN	NaN	NaN	NaN	NaN
193	SPM587FA18	open	None	2018-11-09	8	[Category:Inquiry, DetectionPhase:Field, Origi...	NaN	NaN	NaN	NaN	NaN
194	SPM587FA18	open	None	2018-11-09	7	[Category:Enhancement, DetectionPhase:Field, O...	NaN	NaN	NaN	NaN	NaN
195	SPM587FA18	open	None	2018-11-09	5	[Category:Bug, DetectionPhase:Design, Originat...	NaN	NaN	NaN	NaN	NaN

196 rows x 11 columns

```
[7]: for i in range(0, len(wrangled_issues_df)):
      if wrangled_issues_df.iloc[i]['labels']:
          for label in wrangled_issues_df.iloc[i]['labels']:
              label_name= (label.split(':')[0])
              label_value= (label.split(':')[1])
              wrangled_issues_df.loc[i, label_name]=label_value
```

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Python 3

```
[7]: for i in range(0, len(wrangled_issues_df)):
      if wrangled_issues_df.iloc[i]['labels']:
          for label in wrangled_issues_df.iloc[i]['labels']:
              label_name= (label.split(':')[0])
              label_value= (label.split(':')[1])
              wrangled_issues_df.loc[i, label_name]=label_value

[8]: wrangled_issues_df

[8]:
```

	Author	State	closed_at	created_at	issue_number	labels	OriginationPhase	DetectionPhase	Category	Priority	...	Status	Pallavi	Latitude	L
0	QFA18SCM70G	closed	2018-11-19	2018-11-17	356	[Category:Inquiry, DetectionPhase:Field, Origina...	Coding	Field	Inquiry	High	...	NaN	NaN		
1	AFA18SCM21V	closed	2018-11-17	2018-11-17	354	[Category:Bug, DetectionPhase:Testing, Origina...	Requirements	Testing	Bug	NaN	...	NaN	NaN		
2	SFA18SCM75J	closed	2018-11-17	2018-11-17	352	[Category:Bug, DetectionPhase:Testing, Origina...	Design	Testing	Bug	Critical	...	NaN	NaN		
3	AFA18SCM64A	closed	2018-11-17	2018-11-16	350	[Category:Inquiry, DetectionPhase:Field, Origina...	Coding	Field	Inquiry	High	...	NaN	NaN		
4	BFA18SCM78Z	closed	2018-11-17	2018-11-16	348	[Category:Inquiry, DetectionPhase:Field, Origina...	Coding	Field	Inquiry	High	...	NaN	NaN		
5	KFA18SCM64T	closed	2018-11-16	2018-11-16	347	[Category:Inquiry, DetectionPhase:Field, Origina...	Coding	Field	Inquiry	High	...	NaN	NaN		
6	CFA18SCM71R	closed	2018-11-16	2018-11-16	345	[Category:Enhancement, DetectionPhase:Testing,...	Design	Testing	Enhancement	Critical	...	NaN	NaN		

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Python 3

187	SPM587FA18	open	None	2018-11-09	14	[Category:Enhancement, DetectionPhase:Design, ...	Coding	Design	Enhancement	Critical	...	NaN	NaN
188	SPM587FA18	open	None	2018-11-09	13	[Category:Bug, DetectionPhase:Design, Originat...	Documentation	Design	Bug	Major	...	NaN	NaN
189	SPM587FA18	open	None	2018-11-09	12	[Category:Inquiry, DetectionPhase:Field, Origi...	Requirements	Field	Inquiry	Critical	...	NaN	NaN
190	SPM587FA18	open	None	2018-11-09	11	[Category:Bug, DetectionPhase:Field, Originati...	Design	Field	Bug	Medium	...	NaN	NaN
191	SPM587FA18	open	None	2018-11-09	10	[Category:Bug, DetectionPhase:Design, Originat...	Design	Design	Bug	Major	...	NaN	NaN
192	SPM587FA18	open	None	2018-11-09	9	[Category:Bug, DetectionPhase:Design, Originat...	Documentation	Design	Bug	Critical	...	NaN	NaN
193	SPM587FA18	open	None	2018-11-09	8	[Category:Inquiry, DetectionPhase:Field, Origi...	Coding	Field	Inquiry	Medium	...	NaN	NaN
194	SPM587FA18	open	None	2018-11-09	7	[Category:Enhancement, DetectionPhase:Field, O...	Coding	Field	Enhancement	Medium	...	NaN	NaN
195	SPM587FA18	open	None	2018-11-09	5	[Category:Bug, DetectionPhase:Design, Originat...	Requirements	Design	Bug	Major	...	NaN	NaN

196 rows × 33 columns

[9]: # Plot in Bar Chart the total number of issues closed every day for every Origination Phase

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Python 3

196 rows × 33 columns

[9]: # Plot in Bar Chart the total number of issues closed every day for every Origination Phase
LabelsReviewedByDate = wrangled_issues_df.groupby(['closed_at','OriginationPhase']).closed_at.count()
dateLabelsFig = LabelsReviewedByDate.unstack().plot(kind='bar',stacked=True, color=['blue','yellow','purple','red','green'], grid=False)

closed_at	Coding	Design	Documentation	Requirements	Testing
2018-11-12	2	3	0	3	0
2018-11-13	2	13	0	18	0
2018-11-14	7	19	0	15	1
2018-11-15	5	9	0	7	0
2018-11-16	12	10	0	2	1
2018-11-17	2	2	0	1	0
2018-11-19	1	0	0	0	0

[10]: # Plot in Bar Chart the total number of issues created for every Phase based on thier Status
LabelsReviewedByDate = wrangled_issues_df.groupby(['Status','OriginationPhase']).created_at.count()
dateLabelsFig = LabelsReviewedByDate.unstack().plot(kind='bar',stacked=True, color=['blue','yellow','purple','red','green'], grid=False)

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Python 3

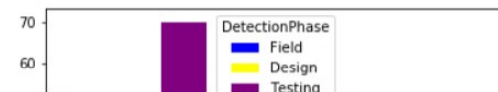
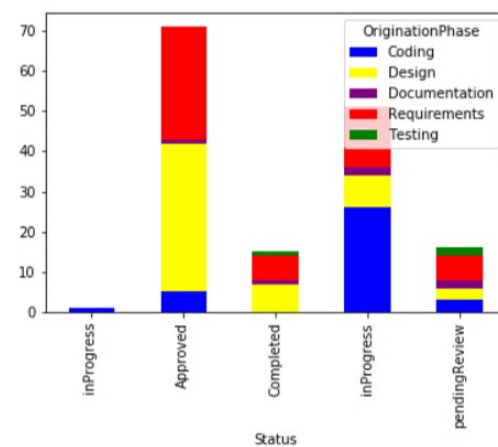
```
[10]: # Plot in Bar Chart the total number of issues created for every Phase based on thier Status
```

```
LabelsReviewedByDate = wrangled_issues_df.groupby(['Status','OriginationPhase']).created_at.count()
```

```
dateLabelsFig = LabelsReviewedByDate.unstack().plot(kind='bar',stacked=True, color=['blue','yellow', 'purple', 'red', 'green'], grid=False)
```

```
LabelsReviewedByDate = wrangled_issues_df.groupby(['Status','DetectionPhase']).created_at.count()
```

```
dateLabelsFig = LabelsReviewedByDate.unstack().plot(kind='bar',stacked=True, color=['blue','yellow', 'purple', 'red', 'green'], grid=False)
```



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charting_issues.ipynb

Import_Issues.ipynb

Python 3

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Status

```
[11]: # Plot in Bar Chart the total number of issues closed every day for every Category

LabelsReviewedByDate = wrangled_issues_df.groupby(['closed_at', 'Category']).closed_at.count()

dateLabelsFig = LabelsReviewedByDate.unstack().plot(kind='bar',stacked=True, color=['blue', 'purple', 'red'], grid=False)
```

closed_at	Bug (blue)	Bug (purple)	Enhancement (red)	Inquiry (blue)
2018-11-12	0	8	0	0
2018-11-13	0	30	2	0
2018-11-14	0	38	2	0
2018-11-15	0	13	4	5
2018-11-16	0	7	6	16
2018-11-17	0	4	0	1
2018-11-19	0	1	0	0

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