**Created Variables Summary**

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**The coding in notebook ‘New variables for applications’ creates 1,377 variables in total.**

* **Day\_since. (Created variables: 27, approximate CPU time: 0.78 min)**

**Days since an application with that entity has been seen.**

**Entities** are ( 'ssn', 'dob', 'homephone', 'name', 'fulladdress', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'fulladdress\_homephone', 'dob\_homephone', 'name\_homephone\_dob', 'name\_fulladdress\_dob', 'ssn\_firstname', 'ssn\_lastname', 'ssn\_address', 'ssn\_zip5', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress', 'ssn\_name\_dob', 'ssn\_name\_fulladdress', 'ssn\_name\_homephone', 'ssn\_fulladdress\_dob', 'ssn\_fulladdress\_homephone', 'ssn\_dob\_homephone')

* **Counts for unique entity in particular field. (Created variables: 540, approximate CPU time: 7.24 mins)**

**Applications at that entity in particular field over the past n days.**

**Entities** are ('ssn', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'dob\_homephone', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress')

**Fields** are (‘ssn', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'dob\_homephone', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress')

**n** is (0, 1, 3, 7, 14, 30)

* **Relative velocity for entity in particular field. (Created variables: 720, approximate CPU time: 2.35 mins)**

**Applications at that entity in particular field seen in a short time window compared to applications at that entity in particular field over a longer time window.**

**Entities** are ('ssn', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'dob\_homephone', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress')

**Fields** are ('ssn', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'dob\_homephone', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress')

**Short time window** is (today or past day)

**Longer time window** is (past 3, 7, 14, 30 days)

* **Day\_since for entity in particular field. (Created variables: 90, approximate CPU time: 1.72 mins)**

**Days since an application with that entity in particular field has been seen.**

**Entities** are ('ssn', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'dob\_homephone', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress')

**Fields** are (‘ssn', 'name\_dob', 'name\_fulladdress', 'name\_homephone', 'fulladdress\_dob', 'dob\_homephone', 'ssn\_dob', 'ssn\_homephone', 'ssn\_name', 'ssn\_fulladdress')