# ebb\_set

表格

描述已自动生成

## last\_plan\_name\_coded

Map plan\_name\_code to int

{'BW': 0, 'BK': 1, 'AI': 2, 'BJ': 3, 'AJ': 4, 'BL': 5, 'BT': 6, 'AP': 7, 'AZ': 8, 'BP': 9, 'BS': 10, 'BX': 11, 'BE': 12, 'AS': 13, 'AV': 14, 'AQ': 15, 'AG': 16, 'BC': 17, 'BG': 18, 'BB': 19, 'AB': 20}

## last\_redemption\_date

removed

## first\_activation\_date

removed

## total\_redemptions

reserve, not change

## tenure

reserve, not change

## number\_upgrades

reserve, not change

## year

removed

## manufacturer

Map manufacturer to int

{nan: 0, 'Samsung Electronics America,Samsung Electronics America': 1, 'LG INC': 2, 'FRANKLIN WIRELESS': 3, 'Bullitt Group Limited': 4, 'BLU Products Inc': 5, 'CLC Hong Kong Limited': 6, 'Red Technologies LLC': 7, 'HTC Corporation': 8, 'FOXX Development Inc': 9, 'Motorola Mobility LLC, a Lenovo Company': 10, 'ALCATEL ': 11, 'Giant Star Mobile Limited': 12, 'Nubia Technology Co Ltd': 13, 'Essential Products, Inc.': 14, 'Sony Mobile Communications Inc.': 15, 'ASUSTek Computer Inc': 16, 'MOTOROLA INC': 17, 'KVD International Group Limited': 18, 'HTC Corporation,HTC Corporation': 19, 'HUAWEI Technologies Co Ltd': 20, 'Zhongshan Highyes Electronics Company Limited': 21, 'Daxing Communications (HK) Co Ltd': 22, 'Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd': 23, 'Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company': 24, 'LG Electronics Inc.,LG Electronics Inc.,LG Electronics Inc.,LG Electronics Inc.': 25, 'OnePlus Technology (Shenzhen) Co Ltd': 26, 'Cloud Mobile Holdings, LLC': 27, 'Shenzhen Jeko Communication Co Limited': 28, 'Vivo Mobile Communication Co Ltd': 29, 'Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company': 30, 'Sony Corporation': 31, 'Wingtech Mobile Communications Co Ltd': 32, 'Doke Communication (HK) Limited': 33, 'ALCATEL': 34, 'Sky Phone LLC': 35, 'Samsung Electronics America': 36, 'Fully Holdings (HK) Co Limited': 37, 'Sierra Wireless': 38, 'Sonim Technologies Inc': 39, 'Avenda Technology Corporation': 40, 'HUAWEI': 41, 'Gotron (HK) Electronic Co Limited': 42, 'ClearCellular Limited': 43, 'ZTE': 44, 'Microsoft Mobile Oy': 45, 'HMD Global Oy': 46, 'BLU PRODUCTS': 47, 'Shenzhen Tinno Mobile Technology Corp': 48, 'KONNECTONE LLC': 49, 'Blackshark Technologies (Nanchang) Co Ltd': 50, 'Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Sam': 51, 'Realme Chongqing Mobile Telecommunications Corp Ltd': 52, 'Vingroup Joint Stock Company': 53, 'Tecno Telecom (HK) Limited': 54, 'Sony Mobile Communications': 55, 'Telekom Austria AG': 56, 'Yunji (Hong Kong) Holdings Co Limited': 57, 'Razer Inc': 58, 'Maxwest Telecom': 59, 'Takumi Japan Ltd': 60, 'SAMSUNG INC': 61, 'Shenzhen Cheng Fong Digital Tech Limited': 62, 'Kyocera Communications Inc.,Kyocera Communications Inc.,Kyocera Communications Inc.,Kyocera Communications Inc.,Kyocera Communications Inc.,Kyocera Communications Inc.,Kyocera Communications Inc.': 63, 'Kyocera Corporation (Osaka)': 64, 'Motorola Mobility LLC, a Lenovo Company,Motorola Mobility LLC, a Lenovo Company': 65, 'Apple Inc': 66, 'TCL Communication Ltd': 67, 'Ruio Telecommunication Technologies Co Limited': 68, 'APPLE': 69, 'Umi Network Technology Co Limited': 70, 'Google Inc': 71, 'Hot Pepper Inc': 72, 'Omes (International) Limited': 73, 'ZTE Corporation': 74, 'Shenzhen Boway Electronic Co Ltd': 75, 'Sun Cupid Technology (HK) Ltd.': 76, 'Neocom S.A': 77, 'Samsung Korea': 78, 'BlackBerry Limited': 79, 'NOKIA': 80, 'Microsoft Corporation': 81, 'Guangdong Oppo Mobile Telecommunications Corp Ltd': 82, 'UNIMAX': 83, 'Shenzhen Motto Electronics Co Ltd': 84, 'Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America,Samsung Electronics America': 85, 'Shenzhen Huafurui Technology Co Ltd': 86, 'Xiaomi Communications Co Ltd': 87, 'Microsoft Mobile Oy, Nokia Corporation': 88, 'Hong Kong Unihertz E-Commerce Company Limited': 89, 'Teleepoch Ltd': 90, 'FIH Co Ltd': 91, 'Kyocera Communications Inc.': 92, 'LG Electronics Inc.': 93}

## operating\_system

**First Format and classify A**

{'kaios': 'ios', 'not known,not known,not known,not known': None, 'not known': None, 'not known,not known,not known,not known,not known,not known': None, 'android,android,android,android,android,android,android': 'android', 'blackberry,not known': 'blackberry', 'android,not known': 'android', 'blackberry': 'blackberry', 'android,nucleus': 'android', 'not known,not known': None, 'android': 'android', 'proprietary': 'proprietary', 'windows phone': 'windows', 'None': None, 'none': None, 'not known,not known,not known,not known,not known,not known,not known,not known,not known,not known': None, 'android,android': 'android', 'not known,ios': 'ios', 'ios': 'ios', 'windows': 'windows', 'mtk6260,windows phone': 'windows', 'clearos mobile': None, 'not known,not known,not known,not known,not known,not known,not known,not known,not known': None, 'android,android,android,android': 'android'}

**Second map operating\_system to int**

{'proprietary': 0, None: 1, 'blackberry': 2, 'android': 3, 'ios': 4, 'windows': 5}

## language\_preference

removed

## opt\_out\_email

removed

## opt\_out\_loyalty\_email

removed

## opt\_out\_mobiles\_ads

removed

## opt\_out\_phone

removed

## state

**map state to int**

{nan: 0, 'MO': 1, 'WA': 2, 'GA': 3, 'UT': 4, 'NH': 5, 'NM': 6, 'MI': 7, 'MD': 8, 'WY': 9, 'AK': 10, 'NE': 11, 'NJ': 12, 'PA': 13, 'DE': 14, 'MN': 15, 'SC': 16, 'PR': 17, 'VA': 18, 'MS': 19, 'TN': 20, 'AZ': 21, 'ME': 22, 'HI': 23, 'IA': 24, 'KS': 25, 'SD': 26, 'MT': 27, 'VT': 28, 'IN': 29, 'WI': 30, 'AR': 31, 'OK': 32, 'NV': 33, 'DC': 34, 'NC': 35, 'RI': 36, 'OH': 37, 'KY': 38, 'CA': 39, 'CO': 40, 'LA': 41, 'AL': 42, 'VI': 43, 'CT': 44, 'WV': 45, 'OR': 46, 'ID': 47, 'FL': 48, 'NY': 49, 'IL': 50, 'MA': 51, 'ND': 52, 'TX': 53}

## total\_revenues\_bucket

reserve, not change

## marketing\_comms\_1

removed

## marketing\_comms\_2

removed

# 2.activations\_ebb\_set.csv

表格

描述已自动生成

## activation\_channel

接触到客服的方法

# 多一位特征，接触客服次数

**map activation\_channel to int**

**{'RTR': 0, 'WEB': 1, 'WMKIOSK': 2, 'API': 3, 'RETAIL': 4, 'APP': 5, 'BATCH': 6, 'WARP': 7, 'BOT': 8, 'TAS': 9, 'SMS': 10, 'IVR': 11}**

# 3.deactivations\_ebb\_set.csv

## deactivation\_reason

**map deactivation\_reason to int**

表格

描述已自动生成

# 4. deprioritizing\_ebb\_set.csv

Drop

# 5. interactions\_ebb\_set.csv

# 客户打电话给公司

**# reason 保留**

## disposition

1.map disposition to int

2.every disposition is a feature. count different disposition as its feature value

3. disposition will be removed

图里disposition其实是None，因为默认不用None做column name，被自动改成disposition

表格

描述已自动生成

# 6.ivr\_calls\_ebb\_set1.csv

## iscompleted

Feature iscomplete has three kind values:

NotCompleted， Completed， IsNone

Counting for each case as its feature value

表格

低可信度描述已自动生成

# 7.lease\_history\_ebb\_set.csv

drop

# 8.loyalty\_program\_ebb\_set1.csv

文本

描述已自动生成

## total\_quantity

Clustering by user id, summing over total\_quantity

# 9.network\_ebb\_set1.csv

## voice\_minutes

Clustering by user id, summing over voice\_minutes

## total\_sms

Clustering by user id, summing over total\_sms

## total\_kb

Clustering by user id, summing over total\_kb

## hotspot\_kb

Clustering by user id, summing over hotspot\_kb

# 10.notifying\_ebb\_set.csv

drop

# 11.phone\_data\_ebb\_set.csv

表格

描述已自动生成

## battery\_available

Clustering by user id, calculate mean, max, min

## battery\_total

Clustering by user id, calculate mean, max, min

## bluetooth\_on

bluetooth\_on has 2 kind of value : True, False

Clustering by user id, count True, False

## data\_network\_type

只标记1，0，不记录次数

## data\_roaming

bluetooth\_on has 2 kind of value : True, False

Clustering by user id, count True, False

## memory\_available

Clustering by user id, calculate mean, max, min

## memory\_total

Clustering by user id, calculate mean, max, min

## memory\_treshold

Clustering by user id, calculate mean, max, min

## storage\_available

Clustering by user id, calculate mean, max, min

## storage\_total

Clustering by user id, calculate mean, max, min

## temperature

Clustering by user id, calculate mean, max, min

# 12.reactivations\_ebb\_set.csv

## reactivation\_channel

map reactivation\_channel to int

Clustering by user id, count nb of different reactivation\_channel

# 13.redemptions\_ebb\_set.csv

## revenues

Clustering by user id, calculate mean, max, min

# 14.support\_ebb\_set.csv

## case\_type

map case\_type to int

Clustering by user id, count nb of different case\_type

# 15.suspensions\_ebb\_set.csv

## start\_date,end\_date

文本

描述已自动生成

Differ date = End date – start date

Clustering by user id, sum Differ date

# 16.throttling\_ebb\_set.csv

## throttled\_date

// throttled\_date 节流的日期

Clustering by user id, count throttled\_date

# 17. auto\_refill\_ebb\_set1.csv

drop