

Extracting frequent patterns of products in different cities

Dataset: Divar

City and Cat1

- 6 itemset
 - 1: {('businesses',): 9, ('vehicles',): 9, ('leisure-hobbies',): 9, ('electronic-devices',): 9, ('personal',): 9, ('for-the-home',): 9}
 - 6: {('businesses', 'electronic-devices', 'for-the-home', 'leisure-hobbies', 'personal', 'vehicles'): 9}
- 602 rules
 - {businesses} -> {electronic-devices}
 - {businesses} -> {vehicles}
 - {for-the-home} -> {electronic-devices}
 - {electronic-devices} -> {businesses, personal, vehicles}
 - {businesses} -> {electronic-devices, personal, vehicles}
 - {businesses, for-the-home, leisure-hobbies, vehicles} -> {electronic-devices, personal}

City and Cat2

- 8 itemset
 - 1: {'audio-video',): 9, ('game-consoles-and-video-games',): 9, ('equipments-and-machinery',): 9, ('mobile-tablet',): 9, ('batch',): 9, ('parts-accessories',): 9, ('animals',): 9, ('cars',): 9, ('motorcycles',): 9, ('utensils-and-appliances',): 9, ('clothing-and-shoes',): 9, ('furniture-and-home-decore',): 9}
- 314952 rules
 - {audio-video} -> {animals}
 - {animals} -> {audio-video}
 - {batch} -> {animals}
 - {animals} -> {batch}
 - {cars} -> {animals}

Extracting frequent patterns of products

Dataset: DigiKala

Customer_ID and Item_ID

- support threshold=4, min_confidence=0.25
- 9839 itemset
 - (75068,): 4, (1379404,): 4, (172604,): 4, (88768,): 4, (75272,): 4, (170839,): 4, (176502,): 4, (1150874,): 4, (1150874,): 4, (75345,): 4, (88038,): 4, (21393,): 4, (363608,): 4, (192926,): 4, (241047,): 4, (8103,): 4, (130840,): 4, (169960,): 4, (91649,): 4, (471677,): 4,
- 2 rules
 - (388778,): ((104031,), 0.6666666666666666)
 - (31619,): ((294942,), 0.25)

- support threshold=3, min_confidence=0.5
- 15242 itemset
 - (767994,): 3, (61363,): 3, (114994,): 3, (84546,): 3, (75551,): 3, (49386,): 3, (181512,): 3, (168431,): 3, (62073,): 3
- 5 rules
 - (118407,): (426028)
 - (426028,): (118407)
 - (388778,): (104031)
 - (12011, 12011): (90776)
 - (12011, 90776): ()

Extracting frequent patterns of days and used platform

Dataset: Divar

Created_at and Platform

- min_support=0.13, min_confidence=0.2
- 2 itemset
 - {1: {('Tuesday',): 133211, ('Monday',): 132266, ('mobile',): 874237, ('Thursday',): 129668, ('Friday',): 136874, ('Sunday',): 137472, ('Wednesday',): 133741, ('Saturday',): 144403}}
 - 2: {('Friday', 'mobile'): 128030, ('Sunday', 'mobile'): 126168, ('Wednesday', 'mobile'): 123284, ('Saturday', 'mobile'): 132325}}
- 4 rules
 - {Friday} -> {mobile}
 - {Sunday} -> {mobile}
 - {Wednesday} -> {mobile}
 - {Saturday} -> {mobile}

Extracting frequent patterns of product and used platform

Dataset: Divar

Platform and Cat2

- min_support=0.01, min_confidence=0.4
- 2 itemset
 - 1: {'web',}: 73398, ('furniture-and-home-decore',): 204822, ('mobile',): 874237, ('mobile-tablet',): 76444,
 - 2: {'furniture-and-home-decore', 'web': 15659, ('mobile', 'mobile-tablet'): 70685, ('mobile', 'motorcycles'): 19067,
- 17 rules
 - {mobile-tablet} -> {mobile}
 - {motorcycles} -> {mobile}
 - {clothing-and-shoes} -> {mobile}
 - {audio-video} -> {mobile}
 - {cars} -> {mobile}
 - {equipments-and-machinery} -> {mobile}
 - {childrens-clothing-and-shoe} -> {mobile}
 - {animals} -> {mobile}
 - {furniture-and-home-decore} -> {mobile}
 - {game-consoles-and-video-games} -> {mobile}
 - {parts-accessories} -> {mobile}
 - {baby-and-toys} -> {mobile}
 - {building-and-garden} -> {mobile}
 - {computers} -> {mobile}
 - {utensils-and-appliances} -> {mobile}
 - {batch} -> {mobile}
 - {bicycle} -> {mobile}}

Platform and Cat2

- min_support=0.01, min_confidence=0.2
- 2 itemset
 - 1: {'web',): 73398, ('furniture-and-home-decore',): 204822, ('mobile',): 874237, ('mobile-tablet',): 76444,
 - 2: {'furniture-and-home-decore', 'web'): 15659, ('mobile', 'mobile-tablet'): 70685, ('mobile', 'motorcycles'): 19067,
- 19 rules
 - [{web} -> {furniture-and-home-decore}]
 - {mobile-tablet} -> {mobile}
 - {motorcycles} -> {mobile}
 - {clothing-and-shoes} -> {mobile}
 - {audio-video} -> {mobile}
 - {cars} -> {mobile}, {equipments-and-machinery} -> {mobile}
 - {childrens-clothing-and-shoe} -> {mobile}, {animals} -> {mobile}
 - {mobile} -> {furniture-and-home-decore}
 - {furniture-and-home-decore} -> {mobile}
 - {game-consoles-and-video-games} -> {mobile}, {parts-accessories} -> {mobile}
 - {baby-and-toys} -> {mobile}, {building-and-garden} -> {mobile}, {computers} -> {mobile}
 - {utensils-and-appliances} -> {mobile}, {batch} -> {mobile}
 - {bicycle} -> {mobile}]

Platform and Cat1

- min_support=0.1, min_confidence=0.4
- 2 itemset
 - 1: {('for-the-home',): 290313, ('electronic-devices',): 166507, ('mobile',): 874237, ('vehicles',): 206260, ('personal',): 139164}
 - 2: {('electronic-devices', 'mobile'): 150433, ('mobile', 'vehicles'): 192033, ('mobile', 'personal'): 130518, ('for-the-home', 'mobile'): 266887}
- 4 rules
 - {electronic-devices} -> {mobile}
 - {vehicles} -> {mobile}
 - {personal} -> {mobile}
 - {for-the-home} -> {mobile}

Platform and Cat1

- min_support=0.05, min_confidence=0.4
- 2 itemset
 - 1: {('web',): 73398, ('for-the-home',): 290313, ('electronic-devices',): 166507, ('mobile',): 874237, ('vehicles',): 206260, ('personal',): 139164}
 - 2: {('electronic-devices', 'mobile'): 150433, ('mobile', 'vehicles'): 192033, ('mobile', 'personal'): 130518, ('businesses', 'mobile'): 56437}
- 6 rules
 - {electronic-devices} -> {mobile}
 - {vehicles} -> {mobile}
 - {personal} -> {mobile}
 - {businesses} -> {mobile}
 - {leisure-hobbies} -> {mobile}
 - {for-the-home} -> {mobile}

Platform and Cat1,Cat2

- min_support=0.2, min_confidence=0.3
- 2 itemset
 - 1: {('furniture-and-home-decore',): 204822, ('for-the-home',): 290313, ('mobile',): 874237, ('vehicles',): 206260}
 - 2: {('for-the-home', 'furniture-and-home-decore'): 204445, ('mobile', 'vehicles'): 192033, ('for-the-home', 'mobile'): 266887}
- 5 rules
 - {furniture-and-home-decore} -> {for-the-home}
 - {for-the-home} -> {furniture-and-home-decore}
 - {vehicles} -> {mobile}
 - {mobile} -> {for-the-home}
 - {for-the-home} -> {mobile}