```
1 C:\Users\sudar.vendan\.jdks\openjdk-16.0.1\bin\java.
   exe "-javaagent:C:\Program Files\JetBrains\IntelliJ
   IDEA Community Edition 2021.1.2\lib\idea_rt.jar=50542
   :C:\Program Files\JetBrains\IntelliJ IDEA Community
   Edition 2021.1.2\bin" -Dfile.encoding=UTF-8 -
   classpath C:\Users\sudar.vendan\IdeaProjects\
   Mongo_Assignment\target\classes;C:\Users\sudar.vendan
   \.m2\repository\mysql\mysql-connector-java\8.0.24\
   mysql-connector-java-8.0.24.jar;C:\Users\sudar.vendan
   \.m2\repository\com\google\protobuf\protobuf-java\3.
   11.4\protobuf-java-3.11.4.jar;C:\Users\sudar.vendan\.
   m2\repository\org\mongodb\mongodb-driver-sync\4.3.0\
   mongodb-driver-sync-4.3.0.jar;C:\Users\sudar.vendan\.
   m2\repository\org\mongodb\bson\4.3.0\bson-4.3.0.jar;C
   :\Users\sudar.vendan\.m2\repository\org\mongodb\
   mongodb-driver-core\4.3.0\mongodb-driver-core-4.3.0.
   jar;C:\Users\sudar.vendan\.m2\repository\com\
   googlecode\json-simple\json-simple\1.1.1\json-simple-
   1.1.1.jar; C:\Users\sudar.vendan\.m2\repository\junit\
   junit\4.10\junit-4.10.jar;C:\Users\sudar.vendan\.m2\
   repository\org\hamcrest\hamcrest-core\1.1\hamcrest-
   core-1.1.jar upgrad.Driver
2 Connected to DataBase
3 Aug 02, 2021 10:37:20 AM com.mongodb.diagnostics.
   logging.Loggers shouldUseSLF4J
 4 WARNING: SLF4J not found on the classpath.
   is disabled for the 'org.mongodb.driver' component
5 ----- Displaying All Products -----
6 MongoDocId : 61077469d9e3be4a16f5c406
                                            | ProductId
    : P01EC111
                                            | Manufacturer
                   | Category : Cameras
           | Title : Canon PowerShot SX430
   Canon
7 MongoDocId : 6107746ad9e3be4a16f5c407
                                            | ProductId
    : P01EC112
                   | Category : Cameras
                                            | Manufacturer
   Nikon
           | Title : Nikon D5600
8 MongoDocId : 6107746ad9e3be4a16f5c408
                                             ProductId
                   | Category : Cameras
                                             Manufacturer
    : P01EC113
   Panasonic
               | Title : Panasonic LUMIX G7
9 MongoDocId : 6107746bd9e3be4a16f5c409
                                            | ProductId
    : P01EC114
                                             Manufacturer
                   | Category : Cameras
           | Title : Canon EOS 1500D
   Canon
10 MongoDocId : 6107746bd9e3be4a16f5c40a
                                            | ProductId
```

```
: P01EC115 | Category : Cameras
10
                                           | Manufacturer
           | Title : Sony Alpha ILCE 6100L
11 MongoDocId : 61077507bfd5084fd1b82515
                                           | ProductId
    : P01EM100
                   | Category : Mobiles
                                           | Manufacturer
   Apple
          | Title : iPhone SE (2020)
12 MongoDocId: 61077508bfd5084fd1b82516
                                           ProductId
    : P01EM101
                  | Category : Mobiles
                                           | Manufacturer
          | Title : iPhone XS Max
13 MongoDocId: 61077508bfd5084fd1b82517
                                           | ProductId
                | Category : Mobiles
                                           | Manufacturer
    : P01EM102
   Google | Title : Google Pixel 4 XL
14 MongoDocId : 61077508bfd5084fd1b82518
                                           | ProductId
                  | Category : Mobiles
    : P01EM103
                                           | Manufacturer
          | Title : Nokia 8.1 (Nokia X7)
   Nokia
15 MongoDocId : 61077508bfd5084fd1b82519
                                           | ProductId
                                           | Manufacturer
    : P01EM104
                | Category : Mobiles
   Samsung | Title : Samsung Galaxy S10+
16 MongoDocId : 61077509bfd5084fd1b8251a
                                           | ProductId
    : P01EH701
                  | Category : Headphones
                                              | Manufacti
   Sony | Title : Sony WH-XB900N
17 MongoDocId : 61077509bfd5084fd1b8251b
                                           | ProductId
                                            | Manufacti
                  | Category : Headphones
    : P01EH702
  Sennheiser | Title : Sennheiser HD 280 PR0
18 MongoDocId : 61077509bfd5084fd1b8251c
                                           ProductId
                   | Category : Headphones
                                           | Manufacti
    : P01EH703
           | Title : JBL T460BT Extra Bass
   JBL
19 MongoDocId : 6107750abfd5084fd1b8251d
                                           | ProductId
    : P01EH704
                   | Category : Headphones
                                           | Manufacti
   Skullcandy | Title : Skullcandy Crusher Evo
20 MongoDocId : 6107750abfd5084fd1b8251e
                                          | ProductId
    : P01EH705
               | Category : Headphones
                                           | Manufacti
           | Title : boAt Rockerz 400
21 ----- Displaying Top 5 Mobiles -----
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   )", "Manufacturer": "Apple", "NetworkTechnology": "
   GSM / CDMA / HSPA / EVDO / LTE", "Dimensions": "138.4
   x 67.3 x 7.3 mm (5.45 x 2.65 x 0.29 in)", "Weight
   ": "148 g (5.22 oz)", "Display": "4.7 inches, 60.9 cm
    (~65.4% screen-to-body ratio)", "Bluetooth": "5.0,
   A2DP, LE", "Sensors": "Fingerprint (front-mounted),
```

- 22 accelerometer, proximity, gyro, compass, barometer
  ", "OS": "iOS 13", "Chipset": "Apple A13 Bionic (7 nm
  +)", "CPU": "Hexa-core (2x2.65 GHz Lightning + 4x1.8
  GHz Thunder)", "GPU": "Apple GPU (4-core graphics
  )", "Memory": "64GB 3GB RAM, 128GB 3GB RAM, 256GB 3GB
   RAM", "Camera": "12 MP, f/1.8 (wide), PDAF, OIS", "
   Battery": "Non-removable Li-Ion 1821 mAh battery (6.
  96 Wh)", "Category": "Mobiles"}
- 23 {"\_id": {"\$oid": "61077508bfd5084fd1b82516"}, " ProductId": "P01EM101", "Title": "iPhone XS Max", " Manufacturer": "Apple", "NetworkTechnology": "GSM / CDMA / HSPA / EVD0 / LTE", "Dimensions": "157.5  $\times$  77.  $4 \times 7.7 \text{ mm}$  (6.20 x 3.05 x 0.30 in)", "Weight": "208 g (7.34 oz)", "Display": "6.5 inches, 102.9 cm (~84.4 % screen-to-body ratio)", "Bluetooth": "5.0, A2DP, LE ", "Sensors": "Face ID, accelerometer, gyro, proximity, compass, barometer", "OS": "iOS 12, upgradable to iOS 12.2", "Chipset": "Apple A12 Bionic (7 nm)", "CPU": "Hexa-core (2x2.5 GHz Vortex + 4x1.6 GHz Tempest)", "GPU": "Apple GPU (4-core graphics )", "Memory": "64/256/512 GB, 4 GB RAM", "Camera": " 12 MP, f/1.8, 26mm (wide), 1/2.55\", 1.4μm, OIS, PDAF 12 MP, f/2.4, 52mm (telephoto), 1/3.4\",  $1.0\mu$ m, OIS, PDAF, 2x optical zoom", "Battery": "Nonremovable Li-Ion 3174 mAh battery", "Category": " Mobiles"}
- 24 {"\_id": {"\$oid": "61077508bfd5084fd1b82517"}, "
   ProductId": "P01EM102", "Title": "Google Pixel 4 XL
   ", "Manufacturer": "Google", "NetworkTechnology": "
   GSM / CDMA / HSPA / EVDO / LTE", "Dimensions": "160.4
   x 75.1 x 8.2 mm (6.31 x 2.96 x 0.32 in)", "Weight
   ": "193 g (6.81 oz)", "Display": "6.3 inches, 98.0 cm
   (~81.3% screen-to-body ratio)", "Bluetooth": "5.0,
   A2DP, LE, aptX HD", "Sensors": "Face ID,
   accelerometer, gyro, proximity, compass, barometer
   ", "0S": "Android 10", "Chipset": "Qualcomm SM8150
   Snapdragon 855 (7 nm)", "CPU": "Octa-core (1x2.84 GHz
   Kryo 485 & 3x2.42 GHz Kryo 485 & 4x1.78 GHz Kryo 485
  )", "GPU": "Adreno 640", "Memory": "64GB 6GB RAM,
   128GB 6GB RAM", "Camera": "12.2 MP, f/1.7, 27mm (wide
  ), 1/2.55\", 1.4<c2><b5>m, dual pixel PDAF, 0IS 16

- 24 MP, f/2.4, 50mm (telephoto), 1/3.6\", 1.0<c2><b5>m, PDAF, OIS, 2x optical zoom", "Battery": "Non-removable Li-Po 3700 mAh battery", "Category": "Mobiles"}
- 25 {"\_id": {"\$oid": "61077508bfd5084fd1b82518"}, " ProductId": "P01EM103", "Title": "Nokia 8.1 (Nokia X7 )", "Manufacturer": "Nokia", "NetworkTechnology": " GSM / CDMA / HSPA / LTE", "Dimensions": "154.8 x 75.8 x 8 mm (6.09 x 2.98 x 0.31 in)", "Weight": "180 g (6 .35 oz)", "Display": "6.18 inches, 95.3 cm (~81.2% screen-to-body ratio)", "Bluetooth": "5.0, A2DP, LE ", "Sensors": "Fingerprint (rear-mounted), accelerometer, gyro, proximity, compass", "OS": " Android 9.0 (Pie); Android One", "Chipset": "Qualcomm SDM710 Snapdragon 710 (10 nm)", "CPU": "Octa-core ( 2x2.2 GHz 360 Gold & 6x1.7 GHz Kryo 360 Silver)", " GPU": "Adreno 616", "Memory": "64 GB, 4 GB RAM -Nokia 8.164/128 GB, 4/6 GB RAM - Nokia X7Y", "Camera ": "12 MP, f/1.8, 1/2.55\",  $1.4\mu$ m, dual pixel PDAF, OIS 13 MP", "Battery": "Non-removable Li-Ion 3500 mAh battery", "Category": "Mobiles"}
- 26 {"\_id": {"\$oid": "61077508bfd5084fd1b82519"}, " ProductId": "P01EM104", "Title": "Samsung Galaxy S10 +", "Manufacturer": "Samsung", "NetworkTechnology": " GSM / CDMA / HSPA / EVDO / LTE", "Dimensions": "157.6  $\times$  74.1  $\times$  7.8 mm (6.20  $\times$  2.92  $\times$  0.31 in)", "Weight ": "175 g / 198 g (ceramic) (6.17 oz)", "Display": "6 .4 inches, 103.8 cm (~88.9% screen-to-body ratio)", " Bluetooth": "5.0, A2DP, LE, aptX", "Sensors": " Fingerprint (under display), accelerometer, gyro, proximity, compass, barometer, heart rate, Sp02", "OS ": "Android 9.0 (Pie); One UI", "Chipset": "Exynos 9820 (8 nm) - EMEAQualcomm SDM855 Snapdragon 855 (7 nm) - USA/LATAM, China", "CPU": "Octa-core (2x2.73 GHz Mongoose M4 & 2x2.31 GHz Cortex-A75 & 4x1.95 GHz Cortex-A55) - EMEAOcta-core (1x2.84 GHz Kryo 485 & 3x2.41 GHz Kryo 485 & 4x1.78 GHz Kryo 485) - USA/ LATAM, China", "GPU": "Mali-G76 MP12 - EMEA Adreno 640 - USA/LATAM, China", "Memory": "1 TB, 12 GB RAM, 128/512 GB, 8 GB RAM", "Camera": "16MP with f2.2 aperture ultra wide + 12MP with f1.5 and f2.4

- 26 aperture wide + 12MP f2.4 tele| 10MP f1.9 front facing camera", "Battery": "Non-removable Li-Ion 4100 mAh battery", "Category": "Mobiles"}
- 27 ----- Displaying Products ordered by categories
- 28 {"ProductId": "P01EM100", "Title": "iPhone SE (2020
  )", "Manufacturer": "Apple", "NetworkTechnology": "
  GSM / CDMA / HSPA / EVDO / LTE", "Dimensions": "138.4
   x 67.3 x 7.3 mm (5.45 x 2.65 x 0.29 in)", "Weight
   ": "148 g (5.22 oz)", "Display": "4.7 inches, 60.9 cm
   (~65.4% screen-to-body ratio)", "Bluetooth": "5.0,
   A2DP, LE", "Sensors": "Fingerprint (front-mounted),
   accelerometer, proximity, gyro, compass, barometer
   ", "0S": "i0S 13", "Chipset": "Apple A13 Bionic (7 nm
   +)", "CPU": "Hexa-core (2x2.65 GHz Lightning + 4x1.8
   GHz Thunder)", "GPU": "Apple GPU (4-core graphics
  )", "Memory": "64GB 3GB RAM, 128GB 3GB RAM, 256GB 3GB
   RAM", "Camera": "12 MP, f/1.8 (wide), PDAF, 0IS", "
   Battery": "Non-removable Li-Ion 1821 mAh battery (6.
   96 Wh)", "Category": "Mobiles"}
- 29 {"ProductId": "P01EM101", "Title": "iPhone XS Max", " Manufacturer": "Apple", "NetworkTechnology": "GSM / CDMA / HSPA / EVD0 / LTE", "Dimensions": "157.5  $\times$  77. 4 x 7.7 mm (6.20 x 3.05 x 0.30 in)", "Weight": "208 g (7.34 oz)", "Display": "6.5 inches, 102.9 cm (~84.4 % screen-to-body ratio)", "Bluetooth": "5.0, A2DP, LE ", "Sensors": "Face ID, accelerometer, gyro, proximity, compass, barometer", "OS": "iOS 12, upgradable to iOS 12.2", "Chipset": "Apple A12 Bionic (7 nm)", "CPU": "Hexa-core (2x2.5 GHz Vortex + 4x1.6 GHz Tempest)", "GPU": "Apple GPU (4-core graphics )", "Memory": "64/256/512 GB, 4 GB RAM", "Camera": " 12 MP, f/1.8, 26mm (wide), 1/2.55\", 1.4μm, OIS, PDAF 12 MP, f/2.4, 52mm (telephoto), 1/3.4\", 1.0μm, OIS, PDAF, 2x optical zoom", "Battery": "Nonremovable Li-Ion 3174 mAh battery", "Category": " Mobiles"}
- 30 {"ProductId": "P01EM102", "Title": "Google Pixel 4 XL ", "Manufacturer": "Google", "NetworkTechnology": "GSM / CDMA / HSPA / EVD0 / LTE", "Dimensions": "160.4 x 75.1 x 8.2 mm (6.31 x 2.96 x 0.32 in)", "Weight

- 31 {"ProductId": "P01EM103", "Title": "Nokia 8.1 (Nokia X7)", "Manufacturer": "Nokia", "NetworkTechnology": " GSM / CDMA / HSPA / LTE", "Dimensions": "154.8 x 75.8 x 8 mm (6.09 x 2.98 x 0.31 in)", "Weight": "180 g (6 .35 oz)", "Display": "6.18 inches, 95.3 cm (~81.2% screen-to-body ratio)", "Bluetooth": "5.0, A2DP, LE ", "Sensors": "Fingerprint (rear-mounted), accelerometer, gyro, proximity, compass", "OS": " Android 9.0 (Pie); Android One", "Chipset": "Qualcomm SDM710 Snapdragon 710 (10 nm)", "CPU": "Octa-core ( 2x2.2 GHz 360 Gold & 6x1.7 GHz Kryo 360 Silver)", " GPU": "Adreno 616", "Memory": "64 GB, 4 GB RAM -Nokia 8.164/128 GB, 4/6 GB RAM - Nokia X7Y", "Camera ": "12 MP, f/1.8, 1/2.55\",  $1.4\mu$ m, dual pixel PDAF, 13 MP", "Battery": "Non-removable Li-Ion 3500 mAh battery", "Category": "Mobiles"}
- 32 {"ProductId": "P01EM104", "Title": "Samsung Galaxy
  S10+", "Manufacturer": "Samsung", "NetworkTechnology
  ": "GSM / CDMA / HSPA / EVDO / LTE", "Dimensions": "
  157.6 x 74.1 x 7.8 mm (6.20 x 2.92 x 0.31 in)", "
  Weight": "175 g / 198 g (ceramic) (6.17 oz)", "
  Display": "6.4 inches, 103.8 cm (~88.9% screen-to-body ratio)", "Bluetooth": "5.0, A2DP, LE, aptX", "
  Sensors": "Fingerprint (under display), accelerometer
  , gyro, proximity, compass, barometer, heart rate,
  Sp02", "OS": "Android 9.0 (Pie); One UI", "Chipset
  ": "Exynos 9820 (8 nm) EMEAQualcomm SDM855

- 32 Snapdragon 855 (7 nm) USA/LATAM, China", "CPU": "
  Octa-core (2x2.73 GHz Mongoose M4 & 2x2.31 GHz Cortex
  -A75 & 4x1.95 GHz Cortex-A55) EMEAOcta-core (1x2.84 GHz Kryo 485 & 3x2.41 GHz Kryo 485 & 4x1.78 GHz Kryo 485) USA/LATAM, China", "GPU": "Mali-G76 MP12 EMEA Adreno 640 USA/LATAM, China", "Memory": "1 TB , 12 GB RAM, 128/512 GB, 8 GB RAM", "Camera": "16MP with f2.2 aperture ultra wide + 12MP with f1.5 and f2 .4 aperture wide + 12MP f2.4 tele| 10MP f1.9 front facing camera", "Battery": "Non-removable Li-Ion 4100 mAh battery", "Category": "Mobiles"}
- 33 {"ProductId": "P01EH701", "Title": "Sony WH-XB900N
   ", "Manufacturer": "Sony", "HeadPhoneType": "Over Ear
   ", "Battery": "30 Hours", "Warranty": "1 Year", "
   ConnectorType": "Wireless", "WithMicrophone": "Yes
   ", "ItemWeight": "254 g", "Color": "Black", "
   AdditionalFeatures": "Noise cancelling, Built-In
   Alexa & Google Assistant, Extra Bass, Touch Sensor,
   Wireless Noise Cancellation, Quick Attention Mode", "
   Category": "Headphones"}
- 34 {"ProductId": "P01EH702", "Title": "Sennheiser HD 280
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   ": "Over Ear", "Battery": null, "Warranty": null, "
   ConnectorType": "Wired", "WithMicrophone": "No", "
   ItemWeight": "285 g", "Color": "Black", "
   AdditionalFeatures": "Dynamic, closed-ear headphones
   with up to 32 dB attenuation of outside sound", "
   Category": "Headphones"}
- 35 {"ProductId": "P01EH703", "Title": "JBL T460BT Extra Bass", "Manufacturer": "JBL", "HeadPhoneType": "On Ear", "Battery": "11 Hours", "Warranty": "1 Year", "ConnectorType": "Wireless", "WithMicrophone": "Yes ", "ItemWeight": "300g", "Color": "Black", "AdditionalFeatures": "Superior listening experience with JBL Pure Bass sound", "Category": "Headphones"}
- 36 {"ProductId": "P01EH704", "Title": "Skullcandy Crusher Evo", "Manufacturer": "Skullcandy", "HeadPhoneType": "Over Ear", "Battery": "40 Hours", "Warranty": "1 Year", "ConnectorType": "Wireless", "WithMicrophone": "No", "ItemWeight": "340 g", "Color": "Chill Grey", "AdditionalFeatures": "Skullcandy

- 36 Crusher is the original, one-and-only immersive sensory bass experience", "Category": "Headphones"}
- 37 {"ProductId": "P01EH705", "Title": "boAt Rockerz 400
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   ConnectorType": "Wireless", "WithMicrophone": "No", "
   ItemWeight": "124 g", "Color": "Black", "
   AdditionalFeatures": "It has Bluetooth v5.0 with a
   range of 10m and is compatible with Android & iOS", "
   Category": "Headphones"}
- 38 {"ProductId": "P01EC111", "Title": "Canon PowerShot SX430", "Manufacturer": "Canon", "EffectivePixels": "20MP", "Zoom": "45X Optical Zoom", "Dimension": "2.4 x 9.5 x 5.7 cm", "Weight": "830 g", "VideoResolution ": "1080p", "ShutterSpeed": "1/4000 Seconds", "Battery": "Lithium Ion", "Category": "Cameras"}
- 39 {"ProductId": "P01EC112", "Title": "Nikon D5600", "
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   ", "Zoom": "16.67 x Optical Zoom", "Dimension": "7 x
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   Battery": "Lithium Ion", "Category": "Cameras"}
- 40 {"ProductId": "P01EC113", "Title": "Panasonic LUMIX
  G7", "Manufacturer": "Panasonic", "EffectivePixels
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  ": "8.7 x 13.9 x 9.8 cm", "Weight": "645 g", "
  VideoResolution": "4K", "ShutterSpeed": "", "Battery
  ": "Lithium Ion", "Category": "Cameras"}
- 41 {"ProductId": "P01EC114", "Title": "Canon EOS 1500D ", "Manufacturer": "Canon", "EffectivePixels": "24.1 MP", "Zoom": "3X", "Dimension": "7.76 x 12.9 x 10.13 cm", "Weight": "475 g", "VideoResolution": "1080p", "ShutterSpeed": "", "Battery": "Lithium Ion", "Category": "Cameras"}
- 42 {"ProductId": "P01EC115", "Title": "Sony Alpha ILCE 6100L", "Manufacturer": "Sony", "EffectivePixels": "24.2 MP", "Zoom": "", "Dimension": "12 x 5.9 x 6.6 cm ", "Weight": "396 g", "VideoResolution": "", "ShutterSpeed": "1/4000 Seconds", "Battery": "Lithium Ion", "Category": "Cameras"}
- 43 ----- Displaying Product Count by categories -----

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44 Category : Mobiles | Count : 5
45 Category : Headphones | Count : 5
46 Category : Cameras | Count : 5
47 ----- Displaying Wired headphones -----
48 MongoDocId : 61077509bfd5084fd1b8251b | ProductId
   : P01EH702 | Category : Headphones | Manufact
  Sennheiser | Title : Sennheiser HD 280 PRO
49
50 Process finished with exit code 0
51
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