# BUSINESS QUESTIONS

Sales Analysis

1. The Total Revenue in xyzretailstore is **104338.09000000001**
2. Most Revenue in product category is **Electronics** with the total revenue being **'124458.38'**
3. Top 5 best-selling products based on quantity sold are

**Product\_19** with **25** being the total quantity sold

**Product\_35** with **23** being the total quantity sold

**Product\_64** with **19** being the total quantity sold

**Product\_47** with **15** being the total quantity sold

**Product\_96** with **14** being the total quantity sold

Customer insight

1. The Number of purchases by unique customers is **62**
2. The city with the highest no of customers is **Chicago** with a total of **26 customers**
3. The Average age of customers is **40.8900**

Order Analysis

1. The number of orders placed in the last year was **0**
2. The average order value is **1043.3809**
3. The month with the highest total sales is **2023-02** having a total sale amount of **31969.37**

Product performance

1. The Never Sold products are

**Product\_4**

**Product\_5**

**Product\_13**

**Product\_15**

**Product\_16**

**Product\_32**

**Product\_36**

**Product\_37**

**Product\_43**

**Product\_46**

**Product\_49**

**Product\_50**

**Product\_51**

**Product\_52**

**Product\_54**

**Product\_56**

**Product\_58**

**Product\_59**

**Product\_61**

**Product\_63**

**Product\_68**

**Product\_72**

**Product\_75**

**Product\_77**

**Product\_78**

**Product\_82**

**Product\_83**

**Product\_84**

**Product\_88**

**Product\_91**

**Product\_92**

**Product\_94**

**Product\_97**

1. The Top 3 customers who have spent the most are

**Customer\_3** who spent a total of **6408.639999999999**

**Customer\_86** who spent a total of **5169.2**

**Customer\_23** who spent a total of **4467.610000000001**

1. The Product with the highest unit price is **Product\_21** with a unit price of **972.57**

Customer Segmentation

1. The Total revenue generated by each group are

**18-25** with a total revenue of **9595.84**

**26-35** with a total revenue of **18702.84**

**36-45** with a total revenue of **36306.67**

**46-55** with a total revenue of **23713.94**

**55+** with a total revenue of **16018.800000000003**

1. The Percentage of male and female customers is

**Male** with a percentage of **52.00000**

**Female** with a percentage of **48.00000**

# ARTGALLERY BUSINESS QUESTIONS

1. The artists whose artwork is displayed in multiple countries are

|  |  |  |
| --- | --- | --- |
| # artist\_id | full\_name | MOSTCOUNTRY |
| 544 | Peter Paul Rubens | 56 |
| 550 | Claude Monet | 45 |
| 826 | Jean Baptiste Vanmour | 30 |
| 812 | Jan Steen | 28 |
| 900 | Francesco Guardi | 28 |
| 609 | John Singleton Copley | 27 |
| 706 | Anton Raphael Mengs | 27 |
| 714 | Francisco De Goya | 27 |
| 633 | Ivan Aivazovskiy | 25 |
| 872 | Paul CÃ©zanne | 25 |
| 920 | Rembrandt Van Rijn | 24 |
| 625 | Gerard Ter Borch | 23 |
| 737 | Nicolas Poussin | 23 |
| 599 | Thomas Sully | 22 |
| 607 | Sir Anthony Van Dyck | 22 |
| 832 | Gerard Van Honthorst | 22 |
| 856 | Gilbert Stuart | 22 |
| 592 | Aelbert Cuyp | 21 |
| 689 | Georges Seurat | 21 |
| 732 | Frans Hals | 21 |
| 749 | Pieter De Hooch | 21 |
| 598 | Edgar Degas | 20 |
| 691 | Fernand LÃ©ger | 20 |
| 916 | Jean-Baptiste-Camille Corot | 20 |
| 794 | Winslow Homer | 19 |
| 867 | Cornelis Troost | 19 |
| 574 | Johannes Vermeer | 18 |
| 595 | Francois Boucher | 18 |
| 699 | Jean-Baptiste-SimÃ©on Chardin | 18 |
| 720 | Jacques-Louis David | 18 |
| 774 | Diego VelÃ¡zquez | 18 |
| 500 | Pierre-Auguste Renoir | 17 |
| 650 | Ã‰douard Manet | 17 |
| 834 | EugÃ¨ne Delacroix | 17 |
| 531 | Camille Pissarro | 16 |
| 542 | Sir Henry Raeburn | 16 |
| 547 | Ã‰douard Vuillard | 16 |
| 567 | Jean Auguste Ingres | 16 |
| 816 | William James Glackens | 16 |
| 853 | Henri De Toulouse-Lautrec | 16 |
| 883 | Thomas Eakins | 16 |
| 505 | Thomas Gainsborough | 15 |
| 513 | Mary Cassatt | 15 |
| 515 | Thomas Cole | 15 |
| 517 | EugÃ¨ne-Louis Boudin | 15 |
| 539 | Jean-Baptiste Greuze | 15 |
| 553 | El Greco | 15 |
| 569 | Adriaan De Lelie | 15 |
| 665 | Ludolf Backhuysen | 15 |
| 693 | John Frederick Kensett | 15 |
| 729 | Willem Van De Velde | 15 |
| 782 | Paul Gauguin | 15 |
| 784 | Jan Willem Pieneman | 15 |
| 807 | Henri Rousseau | 15 |
| 831 | Amedeo Modigliani | 15 |
| 898 | Joseph M. W. Turner | 15 |
| 520 | Asher Brown Durand | 14 |
| 631 | Bartholomeus Van Der Helst | 14 |
| 735 | David Teniers | 14 |
| 764 | Sir Joshua Reynolds | 14 |
| 813 | Jean-HonorÃ© Fragonard | 14 |
| 541 | Pierre Puvis De Chavannes | 13 |
| 601 | George Romney | 13 |
| 606 | Simon De Vlieger | 13 |
| 627 | Titian | 13 |
| 657 | Gerrit Berckheyde | 13 |
| 681 | Francisco De ZurbarÃ¡n | 13 |
| 718 | Charles Willson Peale | 13 |
| 779 | Maurice Prendergast | 13 |
| 786 | Henri Fantin-Latour | 13 |
| 815 | Leonardo Da Vinci | 13 |
| 909 | Jan Both | 13 |
| 605 | Dominic Serres | 12 |
| 622 | William Bradford | 12 |
| 648 | Jean-Francois Millet | 12 |
| 912 | Pierre Bonnard | 12 |
| 510 | Hans Memling | 11 |
| 537 | Claude Lorrain | 11 |
| 573 | Alfred Sisley | 11 |
| 586 | GabrieÂ¨l Metsu | 11 |
| 637 | William Michael Harnett | 11 |
| 638 | Jean-Baptiste Oudry | 11 |
| 656 | Wassily Kandinsky | 11 |
| 677 | Vincent Van Gogh | 11 |
| 712 | Albert Bierstadt | 11 |
| 719 | Guido Reni | 11 |
| 746 | Jean-Marc Nattier | 11 |
| 769 | Berthe Morisot | 11 |
| 791 | John Singer Sargent | 11 |
| 822 | William Hodges | 11 |
| 825 | FÃ©lix Vallotton | 11 |
| 548 | Albrecht Durer | 10 |
| 558 | Sansio Raphael | 10 |
| 561 | Canaletto | 10 |
| 588 | Caspar David Friedrich | 10 |
| 642 | Jan Adam Kruseman | 10 |
| 645 | Gustave Courbet | 10 |
| 688 | Franz Marc | 10 |
| 703 | Jacob Van Ruisdael | 10 |
| 748 | Francois GÃ©rard | 10 |
| 806 | Willem Claesz. Heda | 10 |
| 873 | Paul Klee | 10 |
| 878 | ChaÃ¯m Soutine | 10 |
| 897 | Ã‰lisabeth VigÃ©e-LeBrun | 10 |
| 593 | Robert Henri | 9 |
| 647 | Simon Vouet | 9 |
| 690 | John Hoppner | 9 |
| 694 | AndrÃ© Derain | 9 |
| 710 | Paul GabriÃ«l | 9 |
| 733 | George Inness | 9 |
| 763 | Paul Signac | 9 |
| 767 | Pieter Jansz. Saenredam | 9 |
| 814 | Jan Van Huysum | 9 |
| 848 | Hans Holbein | 9 |
| 892 | Nicholas Pocock | 9 |
| 894 | Jan Van Scorel | 9 |
| 518 | Hendrick Dubbels | 8 |
| 572 | John Trumbull | 8 |
| 581 | John White Alexander | 8 |
| 608 | James McNeill Whistler | 8 |
| 628 | Joachim Beuckelaer | 8 |
| 640 | Thomas Jacques Somerscales | 8 |
| 673 | ThÃ©odore GÃ©ricault | 8 |
| 709 | Charles Brooking | 8 |
| 717 | John Lynn | 8 |
| 790 | William Trost Richards | 8 |
| 796 | Joseph Blackburn | 8 |
| 804 | Sir Peter Lely | 8 |
| 846 | Gerrit Dou | 8 |
| 876 | Salvador DalÃ­ | 8 |
| 911 | Jean FrÃ©dÃ©ric Bazille | 8 |
| 533 | George Wesley Bellows | 7 |
| 556 | James Tissot | 7 |
| 570 | Constantin A. Westchiloff | 7 |
| 614 | Childe Hassam | 7 |
| 619 | Sandro Botticelli | 7 |
| 643 | Frans Francken | 7 |
| 662 | Charles Courtney Curran | 7 |
| 676 | Francois-Hubert Drouais | 7 |
| 722 | Fitz Hugh Lane | 7 |
| 730 | Pieter Claesz | 7 |
| 741 | Henri Edmond Cross | 7 |
| 768 | Caesar Van Everdingen | 7 |
| 795 | Jan Van Eyck | 7 |
| 797 | Philippe De Champaigne | 7 |
| 810 | Frederick Carl Frieseke | 7 |
| 833 | John Wesley Jarvis | 7 |
| 881 | Hendrick Avercamp | 7 |
| 885 | Lucas Cranach | 7 |
| 511 | Piet Mondrian | 6 |
| 512 | Lemuel Francis Abbott | 6 |
| 516 | Thomas Luny | 6 |
| 526 | Frank Weston Benson | 6 |
| 528 | Joseph Ducreux | 6 |
| 575 | Nicolaes Berchem | 6 |
| 583 | Pompeo Girolamo Batoni | 6 |
| 587 | Georges Braque | 6 |
| 603 | George Stubbs | 6 |
| 611 | Sir Edwin Landseer | 6 |
| 615 | Abraham Mignon | 6 |
| 668 | John Wollaston | 6 |
| 692 | BartolomÃ© Esteban Murillo | 6 |
| 697 | Reinier Nooms | 6 |
| 701 | Giovanni Battista Tiepolo | 6 |
| 711 | Robert Delaunay | 6 |
| 721 | Ernest Lawson | 6 |
| 787 | Lorenzo Lotto | 6 |
| 802 | William Sidney Mount | 6 |
| 817 | Lord Frederic Leighton | 6 |
| 839 | Georges De La Tour | 6 |
| 849 | Jules Pascin | 6 |
| 857 | Martin Johnson Heade | 6 |
| 861 | Jan Porcellis | 6 |
| 877 | Edgar William | 6 |
| 902 | John Constable | 6 |
| 918 | Rembrandt Peale | 6 |
| 535 | Pierre-Henri De Valenciennes | 5 |
| 551 | Sir Lawrence Alma-Tadema | 5 |
| 576 | Roger De La Fresnaye | 5 |
| 591 | William P. Chappel | 5 |
| 600 | Antoine-Jean Gros | 5 |
| 630 | Juan Gris | 5 |
| 635 | Rosa Bonheur | 5 |
| 644 | Benjamin West | 5 |
| 659 | Albert AndrÃ© | 5 |
| 700 | William Redmore Bigg | 5 |
| 704 | John Kane | 5 |
| 716 | William Stanley Haseltine | 5 |
| 736 | Hendrick Ter Brugghen | 5 |
| 738 | Cima Da Conegliano | 5 |
| 740 | Horace Vernet | 5 |
| 751 | Jean-Baptiste Perronneau | 5 |
| 754 | Franz Xavier Winterhalter | 5 |
| 775 | Grant Wood | 5 |
| 783 | Rogier Van Der Weyden | 5 |
| 803 | John La Farge | 5 |
| 811 | John Russell | 5 |
| 818 | Jan Miense Molenaer | 5 |
| 864 | Arthur Bowen Davies | 5 |
| 870 | Caravaggio | 5 |
| 886 | Paulus Potter | 5 |
| 895 | JoaquÃ­n Sorolla | 5 |
| 903 | Armand Guillaumin | 5 |
| 919 | Edmund Charles Tarbell | 5 |
| 501 | Alexandre Cabanel | 4 |
| 504 | August Macke | 4 |
| 534 | Alfred Henry Maurer | 4 |
| 554 | Frans Jansz Post | 4 |
| 589 | William Merritt Chase | 4 |
| 613 | John Everett Millais | 4 |
| 620 | Yves Tanguy | 4 |
| 641 | Arthur Fitzwilliam Tait | 4 |
| 653 | Ã‰mile Bernard | 4 |
| 666 | Frederic Edwin Church | 4 |
| 671 | Thomas Waterman Wood | 4 |
| 675 | Jan Brueghel | 4 |
| 678 | Cecilia Beaux | 4 |
| 682 | Gwen John | 4 |
| 686 | Matthew Pratt | 4 |
| 705 | Willem Bartel Van Der Kooi | 4 |
| 715 | Jean-Hippolyte Flandrin | 4 |
| 728 | Jan Van Goyen | 4 |
| 739 | Maurice De Vlaminck | 4 |
| 742 | Georges D'Espagnat | 4 |
| 788 | John Cleveley | 4 |
| 798 | Ferdinand Bol | 4 |
| 852 | LÃ©on Augustin Lhermitte | 4 |
| 899 | William Adolphe Bouguereau | 4 |
| 913 | Edward Burne-Jones | 4 |
| 509 | Cornelis Springer | 3 |
| 522 | Peter Monamy | 3 |
| 523 | John Francis Rigaud | 3 |
| 529 | Gustaf Wilhelm Palm | 3 |
| 530 | Edward William Cooke | 3 |
| 549 | Arnold BÃ¶cklin | 3 |
| 568 | Theo Van Doesburg | 3 |
| 617 | Hendrik Voogd | 3 |
| 621 | AdÃ©laÃ¯de Labille-Guiard | 3 |
| 639 | George Caleb Bingham | 3 |
| 661 | Peder Severin Kroyer | 3 |
| 684 | Carel Fabritius | 3 |
| 724 | Gustave Moreau | 3 |
| 727 | Geertgen tot Sint Jans | 3 |
| 734 | Edward Hicks | 3 |
| 760 | Kasimir Malevich | 3 |
| 827 | Gustav Klimt | 3 |
| 835 | Enoch Wood Perry | 3 |
| 837 | Adolph Ulrich Wertmuller | 3 |
| 838 | Marie-Guillemine Benoist | 3 |
| 842 | Rachel Ruysch | 3 |
| 843 | Egon Schiele | 3 |
| 874 | Jacob Cornelisz Van Oostsanen | 3 |
| 875 | Jules Bastien-Lepage | 3 |
| 879 | Jean-Ã‰tienne Liotard | 3 |
| 896 | Anne Vallayer-Coster | 3 |
| 901 | John French Sloan | 3 |
| 908 | Jean-Antoine Watteau | 3 |
| 514 | Heinrich Campendonk | 2 |
| 525 | Francis William Edmonds | 2 |
| 527 | Jean Raoux | 2 |
| 532 | Pieter Quast | 2 |
| 540 | Fernand Cormon | 2 |
| 564 | Willem Duyster | 2 |
| 578 | Thomas Lyde Hornbrook | 2 |
| 582 | Charles Demuth | 2 |
| 597 | Adriaen Thomasz. Key | 2 |
| 602 | Francis Luis Mora | 2 |
| 616 | AdÃ¨le Romany | 2 |
| 634 | Charles Caleb Ward | 2 |
| 651 | Jules Breton | 2 |
| 655 | Charles Cromwell Ingham | 2 |
| 667 | Jean-LÃ©on GÃ©rÃ´me | 2 |
| 674 | Claude-Joseph Vernet | 2 |
| 683 | George Frederic Watts | 2 |
| 707 | Laurent de La Hyre | 2 |
| 713 | Isaac Van Ostade | 2 |
| 777 | Ambrosius Bosschaert | 2 |
| 781 | Giacomo Balla | 2 |
| 785 | Lovis Corinth | 2 |
| 793 | Andrea Mantegna | 2 |
| 809 | John Durand | 2 |
| 819 | Willem Maris | 2 |
| 829 | Gustave Caillebotte | 2 |
| 845 | Sir Arthur Stockdale Cope | 2 |
| 850 | Jean BÃ©raud | 2 |
| 851 | Giorgio Morandi | 2 |
| 855 | Anders Zorn | 2 |
| 865 | Buonarroti Michelangelo | 2 |
| 868 | Joshua Johnson | 2 |
| 869 | Pierre Auguste Cot | 2 |
| 888 | John Vanderbank | 2 |
| 889 | Richard Ansdell | 2 |
| 914 | Cornelis Van Haarlem | 2 |

1. The Top 10 most popular themes of artwork are

**Portraits** with a total of **1070** participants

**Nude** with a total of **525** participants

**Landscape Art** with a total of **495** participants

**Rivers/Lakes** with a total of **480** participants

**Flowers** with a total of **457** participants

**Still-Life** with a total of **395** participants

**Abstract/Modern Art** with a total of **342**

**Seascapes** with a total of **322** participants

**Marine Art/Maritime** with a total of **268** participants

**Horses** with a total of **265** participants

1. The Artworks with a selling price less than half of their listed price

|  |  |  |
| --- | --- | --- |
| **Artwork name** | **sale\_price** | **regular\_price** |
| Portrait of Madame Labille-Guyard and Her Pupils | 10 | 125 |
| Portrait of Madame Labille-Guyard and Her Pupils | 10 | 95 |
| Portrait of Madame Labille-Guyard and Her Pupils | 10 | 125 |
| Portrait of Madame Labille-Guyard and Her Pupils | 10 | 95 |
| Disrobing of Christ (Espolio) | 30 | 125 |
| Disrobing of Christ (Espolio) | 30 | 95 |
| Taking the Census | 30 | 85 |
| Ducks Resting in Sunshine | 285 | 575 |
| Ducks Resting in Sunshine | 305 | 645 |
| Portrait of Mr. and Mrs. Thomas Mifflin (Sarah Morris) | 20 | 95 |
| Portrait of Mr. and Mrs. Thomas Mifflin (Sarah Morris) | 20 | 85 |
| Eucharist | 40 | 95 |
| Eucharist | 40 | 85 |
| Extreme Unction | 40 | 85 |
| Extreme Unction | 40 | 95 |
| Marriage | 40 | 85 |
| Marriage | 40 | 95 |
| Saint John Baptizing in the River Jordan | 60 | 165 |
| Saint John Baptizing in the River Jordan | 60 | 145 |
| Saint John Baptizing in the River Jordan | 60 | 125 |
| The Adoration of the Shepherds | 40 | 95 |
| The Adoration of the Shepherds | 40 | 125 |
| The Companions of Rinaldo | 30 | 75 |
| The Companions of Rinaldo | 30 | 85 |
| The Companions of Rinaldo | 30 | 95 |
| The Finding of Moses | 50 | 125 |
| Bowl of Fruit and Tankard Before a Window | 505 | 1015 |

1. Remove Duplicate entries from the artwork, product\_dimension, theme and images table
2. The galleries that opened on both saturday and Sunday are

|  |  |  |
| --- | --- | --- |
| **Museum names** | **city** | **day** |
| Israel Museum | Jerusalem | Saturday |
| The Museum of Modern Art | New York | Saturday |
| Toledo Museum of Art | Toledo | Saturday |
| Pushkin State Museum of Fine Arts | Moscow | Saturday |
| Los Angeles County Museum of Art | Los Angeles | Saturday |
| National Gallery of Victoria | Melbourne | Saturday |
| Solomon R. Guggenheim Museum | New York | Saturday |
| SÃ£o Paulo Museum of Art | SÃ£o Paulo | Saturday |
| The Tate Gallery | London | Saturday |
| The State Hermitage Museum | 2 | Saturday |
| Indianapolis Museum of Art | Indianapolis | Saturday |
| The Metropolitan Museum of Art | New York | Saturday |
| Museum of Fine Arts of Nancy | Nancy | Saturday |
| Museum Folkwang | 45128 | Saturday |
| The Phillips Collection | Washington | Saturday |
| Museum of Grenoble | 38000 | Saturday |
| MusÃ©e des Beaux-Arts de Quimper | 29000 | Saturday |
| Fine Arts Museums of San Francisco Legion of Honor | San Francisco | Saturday |
| Nelson-Atkins Museum of Art | Kansas City | Saturday |
| Smithsonian American Art Museum | Washington | Saturday |
| MusÃ©e du Louvre | 75001 | Saturday |
| Philadelphia Museum of Art | Philadelphia | Saturday |
| National Maritime Museum | London | Saturday |
| The Art Institute of Chicago | Chicago | Saturday |
| Museum of Fine Arts Boston | Boston | Saturday |
| Saint Louis Art Museum | St. Louis | Saturday |
| Rijksmuseum | Amsterdam | Saturday |
| Uffizi Gallery Italy | Firenze | Saturday |
| Ohara Museum of Art | Kurashiki | Saturday |
| MusÃ©e Marmottan Monet | Paris | Saturday |
| Kunsthaus ZÃ¼rich | Zurich | Saturday |
| Walters Art Museum | Baltimore | Saturday |
| National Gallery of Art | Washington | Saturday |
| KrÃ¶ller-MÃ¼ller Museum | 6731 AW Otterlo | Saturday |
| National Gallery | London | Saturday |
| National Museum | Cardiff | Saturday |
| Mauritshuis Museum | Den Haag | Saturday |
| Columbus Museum of Art | Columbus | Saturday |
| MusÃ©e d'Orsay | Paris | Saturday |
| Kimbell Art Museum | Fort Worth | Saturday |
| The Prado Museum | Madrid | Saturday |
| Walker Art Gallery | Liverpool | Saturday |
| The Barnes Foundation | Philadelphia | Saturday |
| Dallas Museum of Art | Dallas | Saturday |
| Hungarian National Gallery | Budapest | Saturday |
| Museum of Fine Arts | Bern | Saturday |
| Cleveland Museum Of Art | Cleveland | Saturday |
| Army Museum | Paris | Saturday |
| Museum of Fine Arts, Houston | Houston | Saturday |
| Chrysler Museum of Art | Norfolk | Saturday |
| The J. Paul Getty Museum | Los Angeles | Saturday |
| National Gallery Prague | NovÃ© MÄ›st | Saturday |
| Thussen-Bornemisza Museum | Madrid | Saturday |
| Norton Simon Museum | Pasadena | Saturday |
| Van Gogh Museum | Amsterdam | Saturday |
| Courtauld Gallery | Stran | Saturday |
| National Museum of Art Architecture and Design | Oslo | Saturday |
| Pushkin State Museum of Fine Arts | Moscow | Sunday |
| National Gallery of Victoria | Melbourne | Sunday |
| SÃ£o Paulo Museum of Art | SÃ£o Paulo | Sunday |
| The State Hermitage Museum | 2 | Sunday |
| The Metropolitan Museum of Art | New York | Sunday |
| Museum Folkwang | 45128 | Sunday |
| Nelson-Atkins Museum of Art | Kansas City | Sunday |
| MusÃ©e du Louvre | 75001 | Sunday |
| National Maritime Museum | London | Sunday |
| Museum of Fine Arts Boston | Boston | Sunday |
| Rijksmuseum | Amsterdam | Sunday |
| Israel Museum | Jerusalem | Sunday |
| Museum of Grenoble | 38000 | Sunday |
| Kunsthaus ZÃ¼rich | Zurich | Sunday |
| National Gallery of Art | Washington | Sunday |
| National Gallery | London | Sunday |
| Mauritshuis Museum | Den Haag | Sunday |
| MusÃ©e d'Orsay | Paris | Sunday |
| The Prado Museum | Madrid | Sunday |
| The Barnes Foundation | Philadelphia | Sunday |
| Hungarian National Gallery | Budapest | Sunday |
| Cleveland Museum Of Art | Cleveland | Sunday |
| Museum of Fine Arts, Houston | Houston | Sunday |
| The J. Paul Getty Museum | Los Angeles | Sunday |
| Thussen-Bornemisza Museum | Madrid | Sunday |
| Van Gogh Museum | Amsterdam | Sunday |
| The Phillips Collection | Washington | Sunday |
| The Tate Gallery | London | Sunday |
| Walters Art Museum | Baltimore | Sunday |
| Smithsonian American Art Museum | Washington | Sunday |
| KrÃ¶ller-MÃ¼ller Museum | 6731 AW Otterlo | Sunday |
| Toledo Museum of Art | Toledo | Sunday |
| National Museum | Cardiff | Sunday |
| Philadelphia Museum of Art | Philadelphia | Sunday |
| Columbus Museum of Art | Columbus | Sunday |
| Indianapolis Museum of Art | Indianapolis | Sunday |
| Kimbell Art Museum | Fort Worth | Sunday |
| The Art Institute of Chicago | Chicago | Sunday |
| Walker Art Gallery | Liverpool | Sunday |
| Solomon R. Guggenheim Museum | New York | Sunday |
| National Museum of Art Architecture and Design | Oslo | Sunday |
| The Museum of Modern Art | New York | Sunday |
| Dallas Museum of Art | Dallas | Sunday |
| Saint Louis Art Museum | St. Louis | Sunday |
| Museum of Fine Arts | Bern | Sunday |
| Museum of Fine Arts of Nancy | Nancy | Sunday |
| Army Museum | Paris | Sunday |
| Uffizi Gallery Italy | Firenze | Sunday |
| Chrysler Museum of Art | Norfolk | Sunday |
| Los Angeles County Museum of Art | Los Angeles | Sunday |
| National Gallery Prague | NovÃ© MÄ›st | Sunday |
| Ohara Museum of Art | Kurashiki | Sunday |
| Norton Simon Museum | Pasadena | Sunday |
| Fine Arts Museums of San Francisco Legion of Honor | San Francisco | Sunday |
| Courtauld Gallery | Stran | Sunday |
| MusÃ©e Marmottan Monet | Paris | Sunday |

1. How many galleries are opened every day of the week

|  |  |
| --- | --- |
| **day** | **open\_everyday** |
| Monday | 29 |
| Tuesday | 43 |
| Wednesday | 51 |
| Sunday | 56 |
| Thursday | 57 |
| Friday | 57 |
| Saturday | 58 |

1. Which canvas size has the highest cost
2. Which galleries don't have artwork on display

|  |  |
| --- | --- |
| **names** | **city** |
| Ohara Museum of Art | Kurashiki |
| MusÃ©e Marmottan Monet | Paris |
| Walters Art Museum | Baltimore |
| KrÃ¶ller-MÃ¼ller Museum | 6731 AW Otterlo |
| National Museum | Cardiff |
| Columbus Museum of Art | Columbus |
| Kimbell Art Museum | Fort Worth |
| Walker Art Gallery | Liverpool |
| National Museum of Art Architecture and Design | Oslo |
| Dallas Museum of Art | Dallas |
| Museum of Fine Arts | Bern |
| Army Museum | Paris |
| Chrysler Museum of Art | Norfolk |
| National Gallery Prague | NovÃ© MÄ›st |
| Norton Simon Museum | Pasadena |
| Courtauld Gallery | Stran |

1. the galleries with incorrect city information in the dataset
2. Gallery with the highest number of artworks in the most popular style is **Rijksmuseum** on style **Baroque** with a total of **153**
3. The Top 5 most visited galleries are

**The Metropolitan Museum of Art** with a total of **536** artworks displayed

**Rijksmuseum** with a total of **352** artworks displayed

**National Gallery** with a total of **314** artworks displayed

**National Gallery of Art** with a total of **175** artworks displayed

**National Maritime Museum** with a total of **131** artworks displayed

1. How many artworks have a selling price higher than their listed price? **None**
2. The Gallery\_Hours table has one invalid entry. Identify and delete it
3. The 3 least common canvas sizes are

**15" x 22"(38 cm x 56 cm)**

**16" x 18"(41 cm x 46 cm)**

**16" x 20"(41 cm x 51 cm)**

1. The top 5 most prolific artists are

**Edgar Degas** with a total of **3** artworks created by the artists

**Jan Porcellis** with a total of **2** artworks created by the artists

**EugÃ¨ne-Louis Boudin** with a total of **2** artworks created by the artists

**Francesco Guardi** with a total of **2** artworks created by the artists

**Frans Hals** with a total of **2** artworks created by the artists

1. Which gallery is open the longest each day? Display gallery name, state, hours open, and which day.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **museum\_id** | **namess** | **state** | **hours\_open** | **day** |
| 40 | MusÃ©e du Louvre | Paris | 12:45:00 | Friday |

1. List all the artworks that are not currently exhibited in any galleries. **None**
2. The country has the fifth-highest number of artworks is **United Kingdom** with a total of **131** artworks
3. The 3 most popular styles of artwork are

|  |  |
| --- | --- |
| **style** | **count** |
| Baroque | 548 |
|  | 438 |
| Impressionism | 307 |

The 3 least popular styles of artwork are

|  |  |
| --- | --- |
| **style** | **count** |
| Art Nouveau | 4 |
| Surrealism | 13 |
| Naturalism | 16 |

1. the country and city with the highest number of galleries

|  |  |  |
| --- | --- | --- |
| **country** | **city** | **mostnumberofmuseum** |
| USA | New York | 3 |
| USA | Washington | 3 |
| France | Paris | 3 |

1. the artist and gallery with the highest priced artwork

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **full\_name** | **price** | **namess** | **namess** | **city** | **label** |
| Peter Paul Rubens | 1115 | Fortuna | The Prado Museum | Madrid | 48" x 96"(122 cm x 244 cm) |

the artist and gallery with the highest priced artwork

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **full\_name** | **price** | **namess** | **namess** | **city** | **label** |
| AdÃ©laÃ¯de Labille-Guiard | 10 | Portrait of Madame Labille-Guyard and Her Pupils | The Metropolitan Museum of Art | New York | 36" Long Edge |

1. The artist that has the most Portraits artworks outside the USA? Display artist name, number of artworks, and artist nationality.

|  |  |  |  |
| --- | --- | --- | --- |
| **artist\_id** | **full\_name** | **artwork\_count** | **nationality** |
| 569 | Adriaan De Lelie | 15 | Dutch |
| 784 | Jan Willem Pieneman | 15 | Dutch |