

# CS405 Assignment 1 Report

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For this assignment, I downloaded the data for “Deaths by month and gender” from the TÜİK website. In the excel file, deaths by month and gender data from 2009 to 2022 were available. After skimming the dataset, I realized that I had the data for the deaths during the pandemic for each month, so I wondered how the death tolls have changed during each month of 2020. So I concentrated on **total deaths in each month in 2020**.

Ay ve cinsiyete göre ölümler, 2009-2022  
Deaths by month and sex, 2009-2022

Ay-Month	Cinsiyet-Sex	Yıl-Year													
		2009	2010	2011	2012	2013	2014	2015	2016	2017 <sup>(1)</sup>	2018 <sup>(1)</sup>	2019 <sup>(1)</sup>	2020 <sup>(1)</sup>	2021 <sup>(1)</sup>	2022
Toplam Total	Toplam-Total	369 703	366 471	376 162	376 520	373 041	391 091	405 528	422 964	426 857	426 785	436 624	509 048	566 485	504 839
	Erkek-Male	203 653	200 445	206 505	207 634	205 439	213 682	222 029	231 589	233 661	233 138	238 367	285 160	309 322	275 531
	Kadın-Female	166 050	166 026	169 657	168 886	167 602	177 409	183 499	191 375	193 196	193 647	198 257	223 888	257 163	229 308
Ocak January	Toplam-Total	34 877	30 525	35 347	37 085	33 306	39 581	34 918	43 871	43 793	38 883	48 821	42 014	46 955	53 875
	Erkek-Male	18 917	16 601	19 073	20 342	18 178	21 053	19 047	23 555	23 401	21 096	25 837	22 963	26 179	29 281
	Kadın-Female	15 960	13 924	16 274	16 743	15 128	18 528	15 871	20 316	20 392	17 787	22 984	19 051	20 776	24 594
Şubat February	Toplam-Total	31 212	28 580	34 559	33 232	30 111	30 895	32 870	36 355	36 202	35 091	36 676	35 029	36 917	53 116
	Erkek-Male	16 958	15 505	18 548	17 851	16 431	16 540	17 830	19 578	19 573	18 984	19 683	19 137	20 341	28 908
	Kadın-Female	14 254	13 075	16 011	15 381	13 680	14 355	15 040	16 777	16 629	16 107	16 993	15 892	16 576	24 208
Mart March	Toplam-Total	33 605	31 116	33 100	33 047	31 697	33 661	37 925	34 455	36 952	36 414	37 035	37 683	43 086	46 379
	Erkek-Male	18 527	16 999	17 984	18 142	17 367	18 319	20 657	18 812	20 165	19 818	20 144	20 788	23 764	25 585
	Kadın-Female	15 078	14 117	15 116	14 905	14 330	15 342	17 268	15 643	16 787	16 596	16 891	16 895	19 322	20 794
Nisan April	Toplam-Total	30 543	29 202	29 377	30 357	29 387	31 548	34 983	32 661	34 116	34 255	35 058	38 368	51 133	38 557
	Erkek-Male	16 868	16 110	16 204	16 749	16 116	17 231	19 173	17 911	18 888	18 840	19 189	21 204	28 330	21 047
	Kadın-Female	13 675	13 092	13 173	13 608	13 271	14 317	15 810	14 750	15 228	15 415	15 869	17 164	22 803	17 510

Image 1: Screenshot of “ay ve cinsiyete gore olumler.xls” dataset

The first thing that I thought of was to create a bar chart with months on the x-axis, and total deaths on the y-axis. First, I created two “line” objects to represent x and y axes inside the svg. Then I created “rect” objects for each month on the x-axis, by giving the height values as the total death toll of that month. As the values were way too high, the bars were covering the entire screen, so I converted the height values to 3 digit numbers, which eventually showed me the bars, but this time the differences were not clear enough. Finally, I multiplied the height values by 3, and it became a much clearer graph. The next problem I faced was leveling the bars on the x-axis. When I changed the “height” parameter of the “rect” objects, it shifted on the y-axis, therefore I experimented with “y” and “height” parameters and eventually found the sweet spot to level the bars on the x-axis. Then I added the month labels for x-axis and changed their x parameter to equally separate them right under their respective bars, and similarly added y-axis labels for death tolls for each 15000 mark.

Later on, I added the exact death totals as text for each month inside every bar. Finally, I changed the fill color for every alternating bar to make the graph look better.

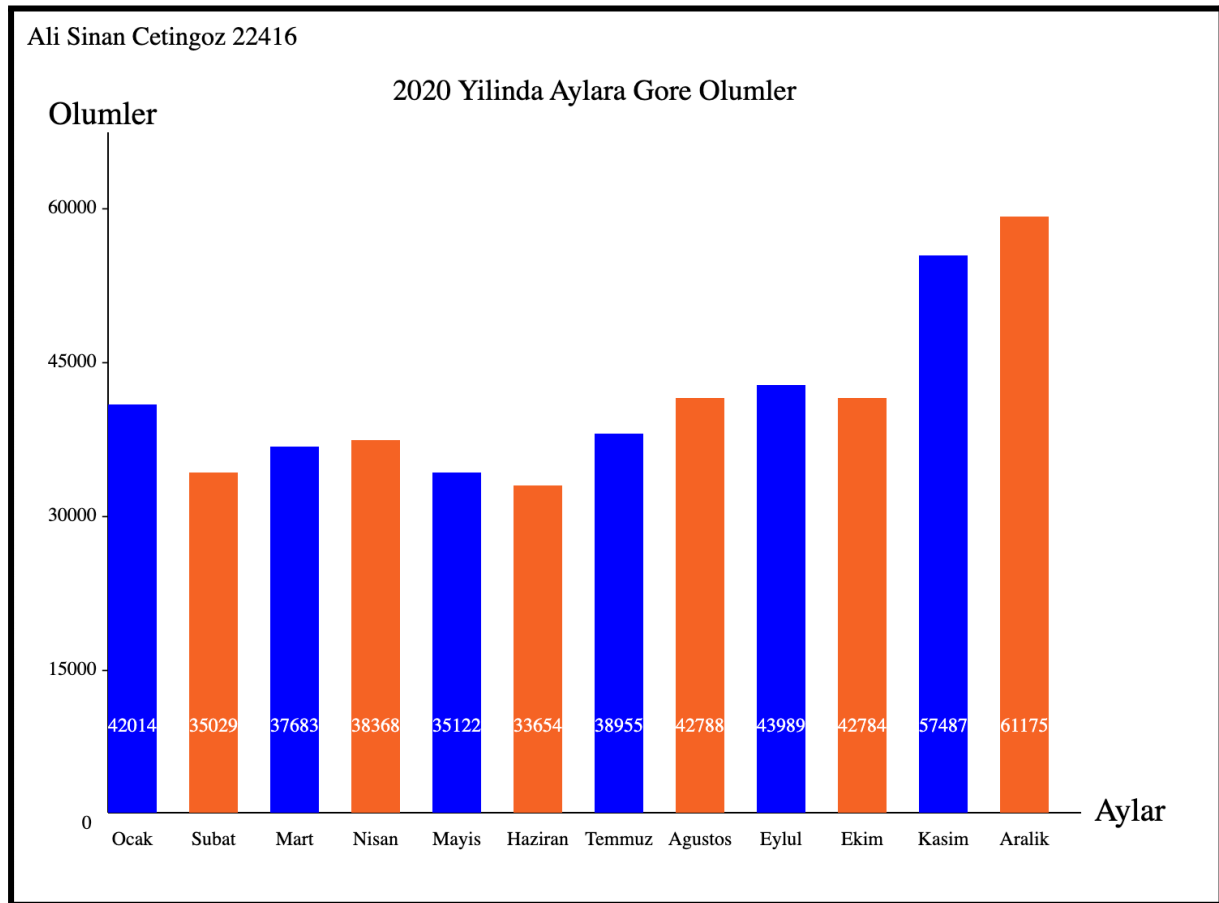


Image 2: Final Bar Chart for "Total Deaths in 2020 by Month"