

**Do not use any data structures such as array or ArrayList to store data.**

**Do not write other methods, basically write the code in the main () method. Do not write OOP.**

1. Rewrite the first program in Assignment 5 so that **do...while** loop and **for** loop are used. [6 points]

do...while

d) Use a ~~while~~ loop to output all the numbers divisible by 5 from n1 and n2 inclusive and the sum of these numbers.

for

e) Use a ~~while~~ loop to output all the odd numbers from n2 and n1 (large to small) inclusive and the average of these numbers.

f) Use a ~~while~~ loop to output the table of each even integer and its square between 2 and 16 inclusive.

do...while

or

for

2. The data file **MLB\_Stats.txt** contains the MLB American League selected player stats in 2022 regular season. It includes the player name, team, game played, at bats, runs, hits, and home runs. [The data file was downloaded from Yahoo Sport on 9/18/2022]

**MLB\_Stats.txt**

Player	Team	Games Played	At Bats	Runs	Hits	Home Runs
		G	AB	R	H	HR
Aaron_Judge	NYN	141	520	119	162	57
Adolis_Garcia	TEX	140	549	80	138	25
Alejandro_Kirk	TOR	126	424	56	125	13
Alex_Bregman	HOU	140	494	87	132	21
Alex_Verdugo	BOS	138	538	66	151	9
Amed_Rosario	CLE	138	575	76	163	10
Andres_Gimenez	CLE	132	438	59	131	16
Andrew_Benintendi	NYN	126	461	54	140	5
..... More players						

Write a program that reads the data from the data file, calculates the batting average (hits / atBats) for each player, then stores the data and results in the output file (**MLB\_Result.txt**). **[14 points]**

The program also inputs the favorite team, and then counts the number of players, calculates the total home runs and average batting average, and finds the player with the highest home runs for your favorite team. The results should also be stored in the output file. **[Extra Credit: 5 points]**

Sample Run:

```
Which team is your favorite team? HOU
Done. Please check the output file for the result.
----jGRASP: operation complete.
```

**MLB\_Result.txt**

Aaron Judge	NY	141	520	119	162	57	0.312
Adolis Garcia	TEX	140	549	80	138	25	0.251
Alejandro Kirk	TOR	126	424	56	125	13	0.295
Alex Bregman	HOU	140	494	87	132	21	0.267
Alex Verdugo	BOS	138	538	66	151	9	0.281
Amed Rosario	CLE	138	575	76	163	10	0.283
Andres Gimenez	CLE	132	438	59	131	16	0.299
Andrew Benintendi	NY	126	461	54	140	5	0.304
Andrew Vaughn	CWS	121	465	58	134	16	0.288
Anthony Santander	BAL	136	515	69	129	27	0.250
Austin Hays	BAL	128	478	59	119	15	0.249
Bo Bichette	TOR	144	591	84	167	24	0.283
Bobby Witt Jr.	KC	135	527	73	131	20	0.249
Carlos Correa	MIN	121	462	65	129	21	0.279
Cedric Mullins	BAL	140	544	80	144	14	0.265
Corey Seager	TEX	138	542	82	132	30	0.244
DJ LeMahieu	NY	120	451	74	118	12	0.262
Elvis Andrus	CWS	133	468	59	120	14	0.256
George Springer	TOR	119	457	78	119	21	0.260
Gio Urshela	MIN	127	441	51	122	12	0.277
Gleyber Torres	NY	129	485	65	119	21	0.245
Isiah Kiner-Falefa	NY	129	437	63	117	3	0.268
J.D. Martinez	BOS	124	478	64	129	11	0.270
J.P. Crawford	SEA	130	471	53	118	6	0.251
Jeremy Pena	HOU	121	466	61	116	18	0.249
Jose Abreu	CWS	144	553	79	171	15	0.309
Jose Altuve	HOU	127	482	86	138	24	0.286
Jose Ramirez	CLE	141	537	80	150	28	0.279
Julio Rodriguez	SEA	126	491	80	137	27	0.279
Kyle Tucker	HOU	135	493	67	129	28	0.262
Lourdes Gurriel Jr.	TOR	121	453	52	132	5	0.291
Luis Arraez	MIN	131	497	80	157	8	0.316
Marcus Semien	TEX	144	590	91	148	23	0.251
Nathaniel Lowe	TEX	140	532	67	165	25	0.310
Rafael Devers	BOS	126	501	76	144	26	0.287
Randy Arozarena	TB	139	533	66	142	19	0.266
Ryan Mountcastle	BAL	129	497	57	121	22	0.243
Santiago Espinal	TOR	132	442	50	119	7	0.269
Sean Murphy	OAK	134	486	63	124	18	0.255
Shohei Ohtani	LAA	140	519	82	138	34	0.266
Steven Kwan	CLE	132	498	75	144	4	0.289
Taylor Ward	LAA	118	430	62	116	18	0.270
Teoscar Hernandez	TOR	116	439	56	113	20	0.257
Trey Mancini	HOU	129	474	55	120	18	0.253
Ty France	SEA	124	485	55	132	19	0.272
Vladimir Guerrero Jr.	TOR	145	577	82	161	28	0.279
Xander Bogaerts	BOS	136	508	81	160	14	0.315
Yandy Diaz	TB	131	457	68	134	9	0.293
Yordan Alvarez	HOU	121	422	89	128	37	0.303
Yuli Gurriel	HOU	132	493	50	120	8	0.243

Your favourite team HOU:  
 \*\*\*\*\*  
 Total Players: 7  
 Total Home Runs: 154  
 Average Batting Average: 0.266  
 Yordan Alvarez had the most home run: 37.

- Use **printf** or **String.format** method to format the output with alignment, spacing, and decimal places.
- Use java **File**, **FileWriter**, **PrintWriter** objects for File IO. Do not use other types of I/O objects.
- Do not use **try** and **catch** to handle exceptions

**Due: Wednesday, 10/19/22**

- To receive full credit, the assignment must be submitted by the due date.
- Late submissions will incur a penalty of 5% per day.
- Upload the source code to D2L

<p>Each program should have a file header section.</p> <pre> /*  * Author:      Your name  * Date:        Date of completion  * Assignment:  Assignment # NameOfSourceCode.java  * Description: The program description  */ </pre>	Up to 5% deduction
<p>Each program should be written with the appropriate form and style. Use indentation, blank line, and comments to make the source code easy to read.</p>	Up to 5% deduction
<p>Use Java naming convention and meaningful names to name the classes, methods, variables, constants, and other identifiers in the programs.</p>	Up to 5% deduction
<p>Format the output appropriately</p>	Up to 5% deduction