

Atlanta Braves – Data Developer Exercises

SQL Questions

1. List all batters that had a single season WAR greater than 3 during the 2002 or 2003 seasons, or a combined WAR greater than 5 over those two seasons. List in descending order of their combined WAR for those seasons.

name	combined_W	WAR_2002	WAR_2003
Bonds, Barry	22.9	12.7	10.2
Rodriguez, Alex	19.2	10.0	9.2
Pujols, Albert	14.9	5.4	9.5
Edmonds, Jim	13.0	6.7	6.3
Rolen, Scott	12.7	6.5	6.2
Beltran, Carlos	12.3	5.4	6.9
Sheffield, Gary	12.1	4.8	7.3
Helton, Todd	12.1	5.5	6.6
Berkman, Lance	12.1	6.1	6.0
Thome, Jim	11.6	7.3	4.3
Giambi, Jason	11.6	6.6	5.0
Jones, Andruw	11.5	6.3	5.2
Giles, Brian	11.5	6.9	4.6
Boone, Bret	11.3	3.9	7.4
Ramirez, Manny	11.1	5.3	5.8
Cameron, Mike	10.8	5.5	5.3
Abreu, Bobby	10.8	5.2	5.6
Soriano, Alfonso	10.7	5.6	5.1
Garcia, Nomar	10.6	4.8	5.8
Suzuki, Ichiro	10.4	4.7	5.7
Renteria, Edgar	10.4	4.1	6.3
Posada, Jorge	10.2	4.2	6.0
Guerrero, Vladimir	10.1	7.1	3.0
Koskie, Corey	10.0	5.1	4.9
Kent, Jeff	10.0	6.7	3.3
Jones, Chipper	9.8	5.9	3.9
Chavez, Eric	9.8	5.7	4.1
Delgado, Carlos	9.6	4.3	5.3
Jeter, Derek	9.3	5.2	4.1
Ordonez, Magglio	9.1	4.5	4.6
Kotsay, Mark	9.0	4.9	4.1
Gonzalez, Luis	9.0	5.2	3.8
Anderson, Garret	8.8	3.7	5.1
Walker, Larry	8.6	5.4	3.2
Bagwell, Jeff	8.5	4.8	3.7
Winn, Randy	8.2	4.6	3.6
Mora, Melvin	8.0	3.0	5.0
Tejada, Miguel	7.9	4.5	3.4
Sosa, Sammy	7.9	5.1	2.8
Rodriguez, Ivan	7.8	3.3	4.5
Nixon, Trot	7.7	2.7	5.0
Hunter, Torii	7.7	4.2	3.5
Finley, Steve	7.6	4.2	3.4
Vidro, Jose	7.5	4.3	3.2
Giles, Marcus	7.5	0.8	6.7

Valentin, Jose	7.4	3.5	3.9
Castillo, Luis	7.4	2.5	4.9
Lee, Derrek	7.3	3.5	3.8
Palmeiro, Rafael	7.2	4.5	2.7
Beltre, Adrian	7.2	4.0	3.2
Lopez, Javy	7.0	0.2	6.8
Mueller, Bill	6.9	2.2	4.7
Damon, Johnny	6.8	4.4	2.4
Polanco, Placido	6.8	2.9	3.9
Lowell, Mike	6.8	2.7	4.1
Jones, Jacque	6.8	5.0	1.8
Green, Shawn	6.7	4.9	1.8
Furcal, Rafael	6.7	2.7	4.0
Lofton, Kenny	6.7	2.8	3.9
Olerud, John	6.6	4.5	2.1
Durham, Ray	6.6	3.5	3.1
Alfonzo, Edgardo	6.6	5.3	1.3
Sexson, Richie	6.5	2.9	3.6
Kendall, Jason	6.4	2.2	4.2
Kennedy, Adam	6.3	3.4	2.9
Hidalgo, Richard	6.3	0.3	6.0
Stewart, Shannon	6.2	3.2	3.0
Lieberthal, Mike	6.2	3.1	3.1
Piazza, Mike	6.2	4.6	1.6
Hinske, Eric	6.2	4.8	1.4
Sweeney, Mike	6.1	4.5	1.6
Sanders, Reggie	6.1	3.1	3.0
Pierre, Juan	6.0	1.8	4.2
Klesko, Ryan	6.0	4.6	1.4
Kearns, Austin	6.0	5.0	1.0
Bradley, Milton	6.0	1.9	4.1
Mientkiewicz, Doug	5.9	2.2	3.7
Floyd, Cliff	5.9	3.7	2.2
Cabrera, Orlando	5.9	1.7	4.2
Gonzalez, Alex	5.8	1.0	2.7
Wilkerson, Brad	5.7	1.8	3.9
Pierzynski, A.J.	5.7	2.1	3.6
Lee, Carlos	5.7	2.0	3.7
Eckstein, David	5.7	4.5	1.2
Varitek, Jason	5.7	1.9	3.8
Dunn, Adam	5.7	4.1	1.6
Thomas, Frank	5.6	1.4	4.2
Salmon, Tim	5.6	3.3	2.3
Cruz, Jose	5.6	2.4	3.2
Wilson, Preston	5.3	1.9	3.4
Wells, Vernon	5.2	1.4	3.8
Loretta, Mark	5.1	0.7	4.4
Ventura, Robin	5.1	3.7	1.4
Huff, Aubrey	5.1	2.0	3.1
Erstad, Darin	5.1	3.6	1.5
Ensberg, Morgan	5.0	0.4	4.6
Williams, Bernie	4.9	4.9	0
Alou, Moises	4.8	1.4	3.4
Matthews, Gary	4.7	3.1	1.6
Burrell, Pat	4.6	4.4	0.2
Payton, Jay	4.6	3.4	1.2
Blalock, Hank	4.6	0	4.8

Spivey, Junior	4.4	4.3	0.1
Ortiz, David	4.3	1.1	3.2
Vizquel, Omar	4.3	3.3	1.0
Hernandez, Ramon	4.3	1.0	3.3
Glaus, Troy	4.2	3.7	0.5
Lee, Travis	4.1	0.7	3.4
Jenkins, Geoff	4.0	0.9	3.1
DaVanon, Jeff	4.0	0.0	4.0
Burks, Ellis	3.7	3.1	0.6
Bellhorn, Mark	3.6	3.9	0
Byrd, Marlon	3.4	0	3.6
Hatteberg, Scott	3.3	3.2	0.1
Podsednik, Scott	3.2	0.0	3.2
Gerut, Jody	3.2	0	3.2
Bell, David	3.2	3.1	0.1
Matos, Luis	3.1	0	3.6
Hernandez, Jose	3.0	4.5	0
Mondesi, Raul	2.8	0	3.2
Guillen, Jose	2.0	0	3.5

CODE:

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SELECT DISTINCT name, -- Select the player's name
SUM(CAST(WAR AS REAL)) AS combined_WAR, -- Calculate the combined WAR for 2002
and 2003
MAX(CASE WHEN year = '2002' THEN CAST(WAR AS REAL) ELSE 0 END) AS
WAR_2002, -- Maximum WAR for 2002
MAX(CASE WHEN year = '2003' THEN CAST(WAR AS REAL) ELSE 0 END) AS WAR_2003
-- Maximum WAR for 2003
FROM WAR -- Specify the table to query from
WHERE year IN ('2002', '2003') -- Include only data from 2002 and 2003
GROUP BY name -- Group results by player name
HAVING
MAX(CASE WHEN year = '2002' THEN CAST(WAR AS REAL) ELSE 0 END) > 3 --
Single-season WAR > 3 in 2002
OR MAX(CASE WHEN year = '2003' THEN CAST(WAR AS REAL) ELSE 0 END) > 3 --
Single-season WAR > 3 in 2003
OR SUM(CAST(WAR AS REAL)) > 5 -- Combined WAR > 5 for both years
ORDER BY combined_WAR DESC; -- Sort results by combined WAR in descending order

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2. Write a query that returns every pitcher who threw at least one pitch for the Atlanta Braves in 2018, along with three 1/0 indicator columns for whether they reached the 1+ WAR, 2+ WAR, or 3+ WAR cutoff in that year, along with a fourth column for their total yearly WAR

name	1_plu	2_plu	3_plu	total
Foltynewicz, Mike	1	1	1	3.9
Sanchez, Anibal	1	1	0	2.4
Newcomb, Sean		1	0	1.9
Minter, A.J.	1	0	0	1.4
Winkler, Dan	1	0	0	1.2
Gausman, Kevin		0	0	0.9
Teheran, Julio	0	0	0	0.7
Soroka, Mike	0	0	0	0.6
Carle, Shane	0	0	0	0.6
Fried, Max	0	0	0	0.4
Toussaint, Touki	0	0	0	0.4
Venters, Jonny	0	0	0	0.3
Vizcaino, Arodys	0	0	0	0.3
Jackson, Luke	0	0	0	0.3
Freeman, Sam	0	0	0	0.3
Brach, Brad	0	0	0	0.3
Biddle, Jesse	0	0	0	0.2
McCarthy, Brandon	0	0	0	0.2
Socolovich, Miguel	0	0	0	0.1
Wilson, Bryse	0	0	0	0.1

CODE:

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SELECT
  name, -- name
  CASE
    WHEN CAST(WAR AS REAL) >= 1 THEN 1 -- Check if WAR is at least 1
    ELSE 0
  END AS "1_plus_WAR", -- Indicator for achieving 1+ WAR
  CASE
    WHEN CAST(WAR AS REAL) >= 2 THEN 1 -- Check if WAR is at least 2
    ELSE 0
  END AS "2_plus_WAR", -- Indicator for achieving 2+ WAR
  CASE
    WHEN CAST(WAR AS REAL) >= 3 THEN 1 -- Check if WAR is at least 3
    ELSE 0
  END AS "3_plus_WAR", -- Indicator for achieving 3+ WAR
  CAST(WAR AS REAL) AS total_WAR -- Convert the WAR column to a numeric type and
display as total yearly WAR
FROM
  PERF -- Table
WHERE
  Org = 'ATL' -- Filter for Team
  AND year = '2018' -- Filter for the 2018 season

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AND CAST(WAR AS REAL) > 0 -- Include only pitchers with at least one pitch (WAR > 0)
ORDER BY
total_WAR DESC; -- Sort the results by total yearly WAR in descending order

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3. How many plate appearances did Luke Jackson have that reached a two-strike count but did NOT result in a strikeout? Of those plate appearances, how many passed through 0-2, 1-2 or 2-2 counts?

total_two_strike_PAs	count_through_0_2	count_through_1_2	count_through_2_2
8	39	48	44

CODE:

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SELECT
COUNT(DISTINCT PA_OF_INNING) AS total_two_strike_PAs, -- Total plate appearances
with two strikes and no strikeout
SUM(CASE
WHEN (BALLS = 0 AND STRIKES = 2) THEN 1
ELSE 0
END) AS count_through_0_2, -- Count of plate appearances passing through a 0-2 count
SUM(CASE
WHEN (BALLS = 1 AND STRIKES = 2) THEN 1
ELSE 0
END) AS count_through_1_2, -- Count of plate appearances passing through a 1-2 count
SUM(CASE
WHEN (BALLS = 2 AND STRIKES = 2) THEN 1
ELSE 0
END) AS count_through_2_2 -- Count of plate appearances passing through a 2-2 count
FROM
PITCHBYPITCH
WHERE
PitcherName = 'Jackson, Luke' -- Filter for Luke Jackson
AND STRIKES = 2 -- Focus on two-strike counts
AND IS_STRIKEOUT = 0; -- Exclude plate appearances resulting in a strikeout

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