

## EAS 596 - CYBERSECURITY ANALYTICS

### ASSIGNMENT 01

#### GROUP- 5:

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1) Create a search where you list out the top 10 goal scorers in the league, sorted from highest to lowest.

#### QUERY:

```
index="nhl" | table PlayerName, Team, Goals | sort limit=10 - Goals
```

#### OUTPUT:

PlayerName ↕	Team ↕	Goals ↕
Connor McDavid	EDM	31
Bo Horvat	VAN	26
Tage Thompson	BUF	26
Jason Robertson	DAL	24
David Pastrnak	BOS	24
Mikko Rantanen	COL	24
Alex Ovechkin	WAS	22
William Nylander	TOR	21
Leon Draisaitl	EDM	21
Mark Scheifele	WPG	20

2) Create a search where you list out all NHL players, by team, who have one or more game winning goals. This should be sorted in alphabetical order of the teams.

#### QUERY:

```
index=nhl GameWinningGoals>=1
| fields PlayerName, Team, GameWinningGoals
| sort Team
| stats values(PlayerName) as Players by Team
```

OUTPUT:

Team ↕	✓	Players ↕
ANH		John Klingberg Ryan Strome Trevor Zegras Troy Terry
ARI		Clayton Keller Dylan Guenther Janis Moser Lawson Crouse Matias Maccelli Nick Ritchie Nick Schmaltz Shayne Gostisbehere Travis Boyd
BOS		Brad Marchand Charlie McAvoy David Pastrnak Derek Forbort Hampus Lindholm Jake DeBrusk Jakub Zboril Matt Grzelcyk Nick Foligno Patrice Bergeron Pavel Zacha Taylor Hall Trent Frederic
BUF		Alex Tuch Jack Quinn John-Jason Peterka Lawrence Pilut Rasmus Dahlin Tage Thompson Victor Olofsson
CAR		Andrei Svechnikov Brady Skjei Brent Burns Brett Pesce Jacob Slavin Jesper Fast Jesper Kotkaniemi Jordan Martinook Jordan Staal Martin Necas Paul Stastny Sebastian Aho Stefan Noesen

EDM	Connor McDavid Darnell Nurse Kailer Yamamoto Leon Draisaitl Ryan Nugent-Hopkins Warren Foegele Zach Hyman
FLA	Aleksander Barkov Brandon Montour Carter Verhaeghe Eetu Luostarinen Gustav Forsling Josh Mahura Nick Cousins Patric Hornqvist Ryan Lomberg Sam Bennett Sam Reinhart
LA	Adrian Kempe Alex Iafallo Alexander Edler Anze Kopitar Blake Lizotte Carl Grundstrom Gabriel Vilardi Kevin Fiala Phillip Danault Sean Durzi Trevor Moore Viktor Arvidsson
MIN	Alex Goligoski Brandon Duhaime Calen Addison Frederick Gaudreau Jared Spurgeon Kirill Kaprizov Mats Zuccarello Matt Dumba Matthew Boldy Ryan Hartman Sam Steel
MON	Brendan Gallagher Christian Dvorak Cole Caufield David Savard Josh Anderson Kirby Dach Mike Hoffman

CGY	Adam Ruzicka Andrew Mangiapane Elias Lindholm Mikael Backlund Nazem Kadri Rasmus Andersson Trevor Lewis Tyler Toffoli
CHI	Andreas Athanasiou Jarred Tinordi Jason Dickinson Jonathan Toews Max Domi Philipp Kurashev Sam Lafferty
CLS	Andrew Peeke Boone Jenner Eric Robinson Erik Gudbranson Johnny Gaudreau Mathieu Olivier Nick Blankenburg Vladislav Gavrikov
COL	Alex Newhook Artturi Lehkonen Cale Makar J.T. Compher Josh Manson Martin Kaut Mikko Rantanen Samuel Girard Valeri Nichushkin
DAL	Colin Miller Esa Lindell Jamie Benn Jani Hakanpaa Jason Robertson Mason Marchment Nils Lundkvist Radek Faksa Roope Hintz Ty Dellandrea Tyler Seguin Wyatt Johnston
DET	Adam Erne Andrew Copp David Perron Dominik Kubalik Dylan Larkin Elmer Soderblom Filip Hronek Lucas Raymond Moritz Seider

NJ	Damon Severson Dawson Mercer Dougie Hamilton Fabian Zetterlund Jack Hughes Jesper Boqvist Jesper Bratt Michael McLeod Nathan Bastian Nico Hischier Ondrej Palat Yegor Sharangovich
NSH	Alexandre Carrier Filip Forsberg Juuso Parssinen Mark Jankowski Matt Duchene Nino Niederreiter Roman Josi Ryan Johansen Zach Sanford
NYI	Anders Lee Anthony Beauvillier Brock Nelson Jean-Gabriel Pageau Josh Bailey Kyle Palmieri Mathew Barzal Matt Martin Noah Dobson Oliver Wahlstrom Ryan Pullock Simon Holmstrom Zach Parise
NYR	Adam Fox Alexis Lafreniere Artemi Panarin Barclay Goodrow Chris Kreider Filip Chytil Jimmy Vesey Kaapo Kakko Mika Zibanejad Zac Jones

3) Create a search where you list the top 5 teams that have the most penalty minutes. Rename the total count of penalty minutes per team as “Team\_PIM”.

QUERY:

```
index="nhl" | stats sum(PenaltyMinutes) as Team_PIM by Team | sort limit=5 - Team_PIM
```

OUTPUT:

Team	Team_PIM
ANH	421
MIN	412
FLA	408
MON	399
PHI	380

4) Create a table to show the total amount of points, per position, and sort highest to lowest.

QUERY:

```
index=nhl sourcetype=player_stats
| eval fields = split(_raw, ",")
| eval Position = mvindex(fields, 2)
| eval Goals = tonumber(mvindex(fields, 4))
| eval Assists = tonumber(mvindex(fields, 5))
| eval Points = Goals + Assists
| stats sum(Points) as TotalPoints by Position
| sort -TotalPoints
```

OUTPUT:

Position	TotalPoints
C	3253
D	2266
LW	2209
RW	1592

5) Create a table to show, per each team, the total amount of goals that they have, the total amount of shots that they have, and what their shooting percentage is.

QUERY:

```
index=nhl
| stats sum(Goals) as Team_Goals sum(Shots) as Team_Shots by Team
| eval Shooting_Percentage = round((Team_Goals / Team_Shots) * 100, 3) . "%"
| table Team, Team_Goals, Team_Shots, Shooting_Percentage
```

OUTPUT:

Team ⇅	Team_Goals ⇅	Team_Shots ⇅	Shooting_Percentage ⇅
ANH	81	1023	7.918%
ARI	92	811	11.344%
BOS	130	1192	10.906%
BUF	126	1038	12.139%
CAR	107	1221	8.763%
CGY	110	1250	8.800%
CHI	75	881	8.513%