Ryan Novitski, Sophia Rutman
Baseball Lineup Application

This is an app to add baseball players and their stats to a roster, and then generate a batter's lineup for the team. The homepage is below:

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name:

Player On Base Percentage:

Player Batting Average:

Player Slug:

Player OPS:

Enter Player Information

All Players:

Delete a Player

Search a Player

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS

To add a player, add in their name, and numerical stats…

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name: Sophia

Player On Base Percentage: .1

Player Batting Average: .1

Player Slug: .1

Player OPS: .1

Enter Player Information

All Players:

Delete a Player

Search a Player

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS

Then press "Enter Player Information." This will add the entry to the database and the table on the UI:

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name:

Player On Base Percentage:

Player Batting Average:

Player Slug:

Player OPS:

Enter Player Information

All Players:

Delete a Player

Search a Player

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Sophia	0.1	0.1	0.1	0.1

If you enter in stats that are out of the proper range, the UI will tell you which stats are wrong and for which player…
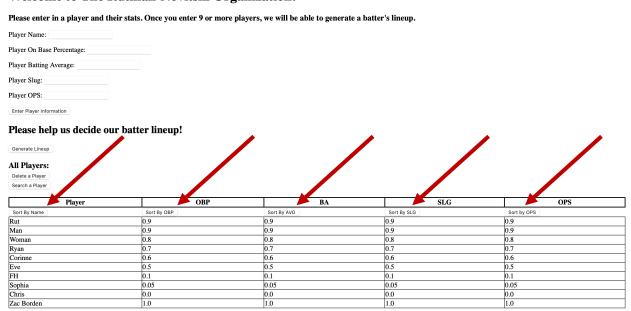
Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name:

Player On Base Percentage:

Player Batting Average:

Player Slug:

Player OPS:

Enter Player Information

All Players:

Delete a Player

Search a Player

Beware: Ryan OBP should be between 0 and 1 as a decimal!

Beware: Ryan AVG should be between 0 and 1 as a decimal!

Beware: Ryan SLG should be between 0 and 1 as a decimal!

Beware: Ryan OPS should be between 0 and 2!

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Sophia	0.1	0.1	0.1	0.1
Ryan	1.2	1.2	1.2	3.0

Lets add in a bunch more names and keep going.

You can press sort by name, which will bring you to another page and sort the players alphabetically by name.

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name:

Player On Base Percentage:

Player Batting Average:

Player Slug:

Player OPS:

Enter Player Information

Please help us decide our batter lineup!

Generate Lineup

All Players:

Delete a Player

Search a Player

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Rut	0.9	0.9	0.9	0.9
Man	0.9	0.9	0.9	0.9
Woman	0.8	0.8	0.8	0.8
Ryan	0.7	0.7	0.7	0.7
Corinne	0.6	0.6	0.6	0.6
Eve	0.5	0.5	0.5	0.5
FH	0.1	0.1	0.1	0.1
Sophia	0.05	0.05	0.05	0.05
Chris	0.0	0.0	0.0	0.0
Zac Borden	1.0	1.0	1.0	1.0

Players sorted by name:

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All players sorted alphabetically by name

Player	OBP	BA	SLG	OPS
Chris	0.0	0.0	0.0	0.0
Corinne	0.6	0.6	0.6	0.6
Eve	0.5	0.5	0.5	0.5
FH	0.1	0.1	0.1	0.1
Man	0.9	0.9	0.9	0.9
Rut	0.9	0.9	0.9	0.9
Ryan	0.7	0.7	0.7	0.7
Sophia	0.05	0.05	0.05	0.05
Woman	0.8	0.8	0.8	0.8
Zac Borden	1.0	1.0	1.0	1.0

Sort by OBP does the same for the OBP, as does the BA, SLG, and OPS…

OBP:

All players sorted by On Base Percentage, highest to lowest.

OBP	Player	BA	SLG	OPS
1.0	Zac Borden	1.0	1.0	1.0
0.9	Man	0.9	0.9	0.9
0.9	Rut	0.9	0.9	0.9
0.8	Woman	0.8	0.8	0.8
0.7	Ryan	0.7	0.7	0.7
0.6	Corinne	0.6	0.6	0.6
0.5	Eve	0.5	0.5	0.5
0.1	FH	0.1	0.1	0.1
0.05	Sophia	0.05	0.05	0.05
0.0	Chris	0.0	0.0	0.0

BA:

All players sorted by AVG, highest to lowest

BA	Player	OBP	SLG	OPS
1.0	Zac Borden	1.0	1.0	1.0
0.9	Man	0.9	0.9	0.9
0.9	Rut	0.9	0.9	0.9
0.8	Woman	0.8	0.8	0.8
0.7	Ryan	0.7	0.7	0.7
0.6	Corinne	0.6	0.6	0.6
0.5	Eve	0.5	0.5	0.5
0.1	FH	0.1	0.1	0.1
0.05	Sophia	0.05	0.05	0.05
0.0	Chris	0.0	0.0	0.0

SLG:

All players sorted by Slugging, highest to lowest.

SLG	Player	OBP	BA	OPS
1.0	Zac Borden	1.0	1.0	1.0
0.9	Man	0.9	0.9	0.9
0.9	Rut	0.9	0.9	0.9
0.8	Woman	0.8	0.8	0.8
0.7	Ryan	0.7	0.7	0.7
0.6	Corinne	0.6	0.6	0.6
0.5	Eve	0.5	0.5	0.5
0.1	FH	0.1	0.1	0.1
0.05	Sophia	0.05	0.05	0.05
0.0	Chris	0.0	0.0	0.0

OPS:

All players sorted by On Base Percentage Plus Slugging, highest to lowest.

Go to homepage

OPS	Player	OBP	BA	SLG
1.0	Zac Borden	1.0	1.0	1.0
0.9	Man	0.9	0.9	0.9
0.9	Rut	0.9	0.9	0.9
0.8	Woman	0.8	0.8	0.8
0.7	Ryan	0.7	0.7	0.7
0.6	Corinne	0.6	0.6	0.6
0.5	Eve	0.5	0.5	0.5
0.1	FH	0.1	0.1	0.1
0.05	Sophia	0.05	0.05	0.05
0.0	Chris	0.0	0.0	0.0

To delete a player from the roster, you can press the "Delete a Player" button on the homepage…

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name: [   ]

Player On Base Percentage: [   ]

Player Batting Average: [   ]

Player Slug: [   ]

Player OPS: [   ]

[Enter Player Information]

Please help us decide our batter lineup!

[Generate Lineup]

All Players:

[Delete a Player]

[Search a Player]

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Rut	0.9	0.9	0.9	0.9
Man	0.9	0.9	0.9	0.9
Woman	0.8	0.8	0.8	0.8
Ryan	0.7	0.7	0.7	0.7
Corinne	0.6	0.6	0.6	0.6
Eve	0.5	0.5	0.5	0.5
FH	0.1	0.1	0.1	0.1
Sophia	0.05	0.05	0.05	0.05
Chris	0.0	0.0	0.0	0.0
Zac Borden	1.0	1.0	1.0	1.0

When you type a players name into the text box below and press "Delete Player by Name," one of two things will happen. Either the user will be redirected to the homepage, which means that the deletion was successful, or the page will not change, meaning it was unsuccessful.

Please enter a player you want to delete from the organization

Delete Player By Name: [   ]

[Delete Player by Name]

If player is successfully deleted, you will be autmatically redirected to the homepage.

If not, you will remain on this page.

Go to homepage

A user can also press the Search a Player button to search for a specific player.

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name:

Player On Base Percentage:

Player Batting Average:

Player Slug:

Player OPS:

Enter Player Information

Please help us decide our batter lineup!

Generate Lineup

All Players:

Delete a Player

Search a Player

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Rut	0.9	0.9	0.9	0.9
Man	0.9	0.9	0.9	0.9
Woman	0.8	0.8	0.8	0.8
Ryan	0.7	0.7	0.7	0.7
Corinne	0.6	0.6	0.6	0.6
Eve	0.5	0.5	0.5	0.5
FH	0.1	0.1	0.1	0.1
Sophia	0.05	0.05	0.05	0.05
Chris	0.0	0.0	0.0	0.0
Zac Borden	1.0	1.0	1.0	1.0

When you do this, a new screen will come up.

Search Player By Name:

Search Player by Name

Clear Search

Search Results:

Player	OBP	BA	SLG	OPS

Go to homepage

When you enter a string of characters into the search bar, any name that contains that string will come up. For example, if you type in "C" and hit "Search Player By Name", this is the screen:

Search Player By Name:

Search Player by Name

Clear Search

Search Results:

Player	OBP	BA	SLG	OPS
Corinne	0.6	0.6	0.6	0.6
Chris	0.0	0.0	0.0	0.0
Zac Borden	1.0	1.0	1.0	1.0

Go to homepage

If you hit "Clear Search" the Search page will revert to the original page.

Search Player By Name:

Search Player by Name

Clear Search

Search Results:

Player	OBP	BA	SLG	OPS

Go to homepage

Now, go back to the homepage. Once you add nine or more players, the option to generate a lineup pops up.

Welcome to The Rutman-Novitski Organization!

Please enter in a player and their stats. Once you enter 9 or more players, we will be able to generate a batter's lineup.

Player Name:

Player On Base Percentage:

Player Batting Average:

Player Slug:

Player OPS:

Enter Player Information

Please help us decide our batter lineup!

Generate Lineup

All Players:

Delete a Player

Search a Player

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Rut	0.9	0.9	0.9	0.9
Man	0.9	0.9	0.9	0.9
Woman	0.8	0.8	0.8	0.8
Ryan	0.7	0.7	0.7	0.7
Corinne	0.6	0.6	0.6	0.6
Eve	0.5	0.5	0.5	0.5
FH	0.1	0.1	0.1	0.1
Sophia	0.05	0.05	0.05	0.05
Chris	0.0	0.0	0.0	0.0
Zac Borden	1.0	1.0	1.0	1.0

You can click that, and a page will come up explaining how lineups are chosen:

Generate your batters lineup here!

First, some details on how the lineup is decided...,

This is how we decide, in the order that we decide. We will chose the second batter first, the third batter second, etc.

2nd batter: highest added AVG and OBP

3rd batter: highest AVG

1st batter: highest OBP

5th batter: highest OPS out of the remaining Players

6-9th: best averages of remaining players, in decreasing order. 6th will have the highest average of all remaining players, 7th will have the second highest, etc.

Now, generate your lineup!

Generate Batter's Lineup

When you press the "Generate Batter's Lineup" button, the lineup will be shown:

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Player	OPS	OBP	BA	SLG
Leadoff	0.5	0.49	0.49	0.5
Second	0.5	0.5	0.5	0.5
Third	0.5	0.5	0.499	0.5
Fourth	0.3	0.1	0.1	0.45
Fifth	0.6	0.1	0.3	0.44
Sixth	0.1	0.1	0.33	0.1
Seventh	0.1	0.1	0.3	0.1
Eighth	0.1	0.1	0.25	0.1
Ninth	0.1	0.1	0.2	0.1

Go to homepage

NOTE: This lineup is derived from this list of players(names are changed for clarity on how the generate lineup sorting works):

Player	OBP	BA	SLG	OPS
Sort By Name	Sort By OBP	Sort By AVG	Sort By SLG	Sort by OPS
Second	0.5	0.5	0.5	0.5
Third	0.5	0.499	0.5	0.5
Leadoff	0.49	0.49	0.5	0.5
Fourth	0.1	0.1	0.45	0.3
Fifth	0.1	0.3	0.44	0.6
Sixth	0.1	0.33	0.1	0.1
Seventh	0.1	0.3	0.1	0.1
Eighth	0.1	0.25	0.1	0.1
Ninth	0.1	0.2	0.1	0.1
Cut from Lineup	0.1	0.19	0.1	0.1