



MEETPLACE

“Where reunions happen”

Final Project 05-2021
Data Analytics Bootcamp
Ironhack Barcelona

by Marta Coll

Business Problem



Friends live around the world



They want to meet for holiday

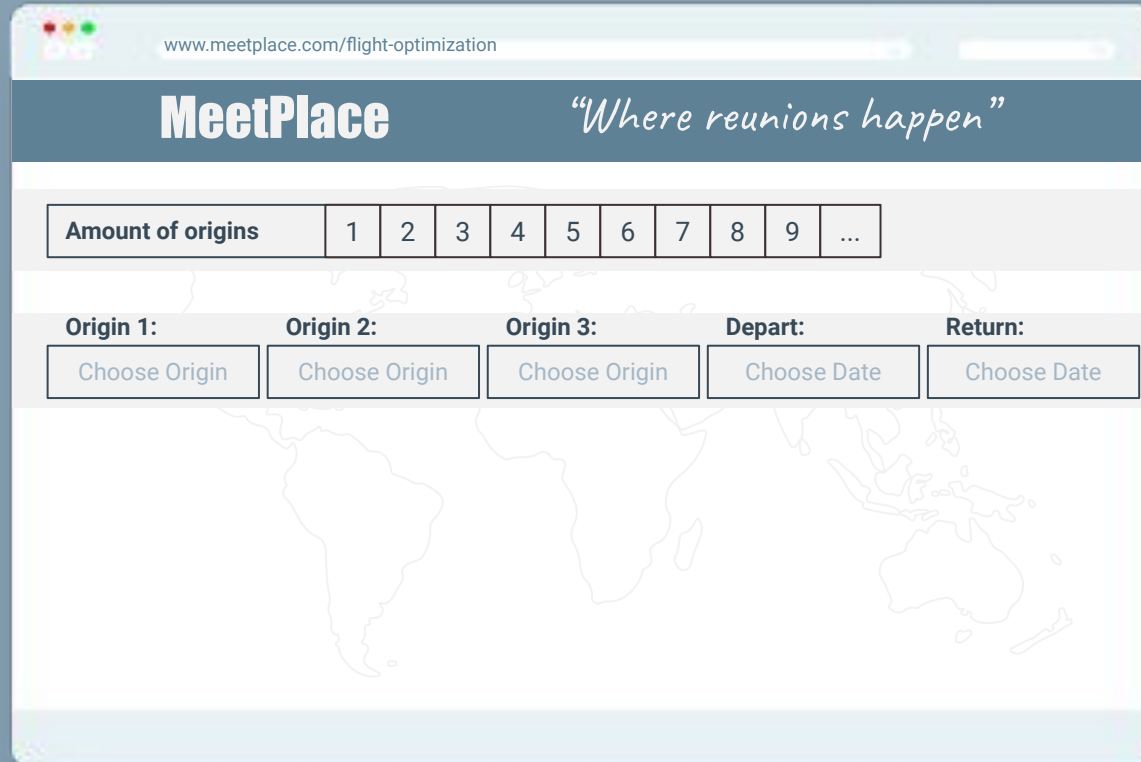


At the cheapest price possible



In a place “in the middle”

Product: MeetPlace V1

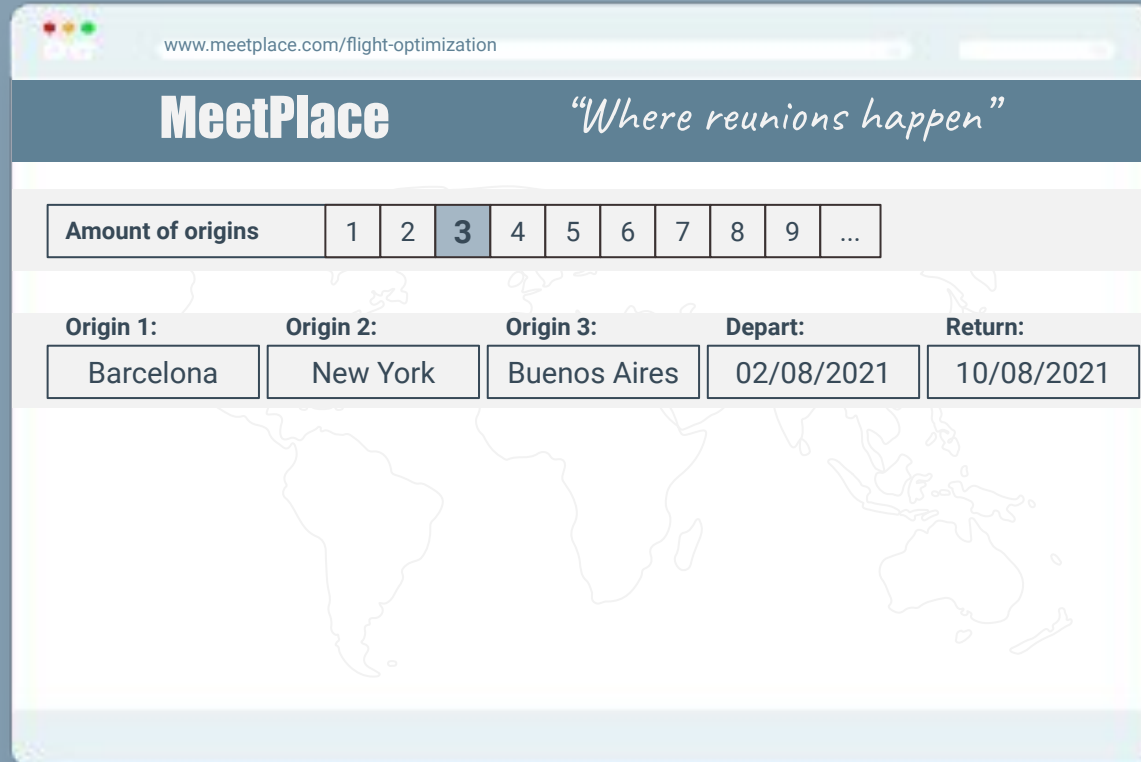


The screenshot shows a web browser window with the URL `www.meetplace.com/flight-optimization`. The page features a dark blue header with the "MeetPlace" logo and the tagline "Where reunions happen". Below the header, there is a form for flight optimization. The first section is a table for "Amount of origins" with columns numbered 1 through 9 and an ellipsis. The second section contains five input fields for "Origin 1:", "Origin 2:", "Origin 3:", "Depart:", and "Return:", each with a "Choose" button. The background of the page is a faint world map.

Amount of origins	1	2	3	4	5	6	7	8	9	...

Origin 1:	Origin 2:	Origin 3:	Depart:	Return:
<input type="button" value="Choose Origin"/>	<input type="button" value="Choose Origin"/>	<input type="button" value="Choose Origin"/>	<input type="button" value="Choose Date"/>	<input type="button" value="Choose Date"/>

Product: MeetPlace V1



The screenshot shows a web browser window with the URL `www.meetplace.com/flight-optimization`. The page features a dark blue header with the "MeetPlace" logo and the tagline "Where reunions happen". Below the header is a form for flight optimization. The first section is a table for "Amount of origins" with columns numbered 1 to 9 and an ellipsis, where the value "3" is selected in the third column. The second section contains five input fields: "Origin 1:" (Barcelona), "Origin 2:" (New York), "Origin 3:" (Buenos Aires), "Depart:" (02/08/2021), and "Return:" (10/08/2021). The background of the form area features a faint world map.

Amount of origins	1	2	3	4	5	6	7	8	9	...

Origin 1:	Origin 2:	Origin 3:	Depart:	Return:
Barcelona	New York	Buenos Aires	02/08/2021	10/08/2021

Product: MeetPlace V1



The screenshot shows a web browser window with the URL www.meetplace.com/flight-optimization. The main heading is "The cheapest place to meet is...". Below this, a red-bordered box highlights the result: **Rome** with a total price of 1.250€ and a per-person price of 416€/ person. A world map is visible in the background. Below the heading, the text "See price details:" is followed by a table with flight details.

From	To	Dept	Price	Return	Price
BCN	RMA	02-08	20€	10-08	16€
BA	RMA	02-08	392€	10-08	353€
NYC	RMA	02-08	276€	10-08	193€

Product: MeetPlace V1

From: ['Barcelona', 'New York City', 'Buenos Aires']

You should meet in: Rome

For a total price of: 1250 €

Price per person: 416 €

See the prices of each flight:

	departure_city	departure_date	departure_flight_price	destination_city	return_date	return_flight_price	price_departure_and_return
0	Barcelona	2021-08-02	20.0	Rome	2021-08-10	16.0	36.0
1	New York City	2021-08-02	276.0	Rome	2021-08-10	193.0	469.0
2	Buenos Aires	2021-08-02	392.0	Rome	2021-08-10	353.0	745.0

Business Problem 2




Product: MeetPlace V2



Destination	Total Price	Price/person
Rome	1.250€	416€
Madrid	1.298€	432€
Miami	1.462€	487€

[Click here for flight details!](#)



Product: MeetPlace V2

From: ['Barcelona', 'New York City', 'Buenos Aires']

You should meet in: Rome

For a total price of: 1250 €

Price per person: 416 €

See the prices of each flight:

	departure_city	departure_date	departure_flight_price	destination_city	return_date	return_flight_price	price_departure_and_return
0	Barcelona	2021-08-02	20.0	Rome	2021-08-10	16.0	36.0
1	New York City	2021-08-02	276.0	Rome	2021-08-10	193.0	469.0
2	Buenos Aires	2021-08-02	392.0	Rome	2021-08-10	353.0	745.0

See other options:

	destination	total_price	price_per_person
0	Rome	1250.0	416.67
1	Madrid	1298.0	432.67
2	Miami	1462.0	487.33

New feature!



Cool! But we do like Rome, let's meet there!



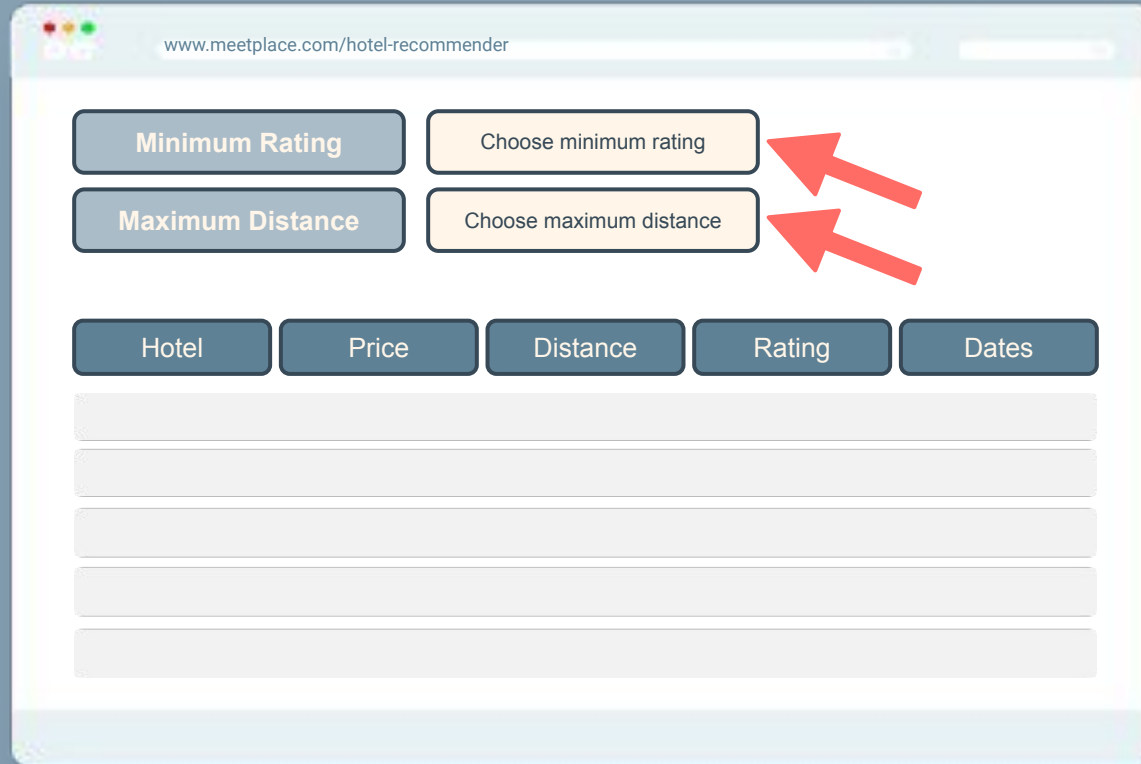
Business Problem 3

None of us have a house in Rome!



Shall we book a hotel?

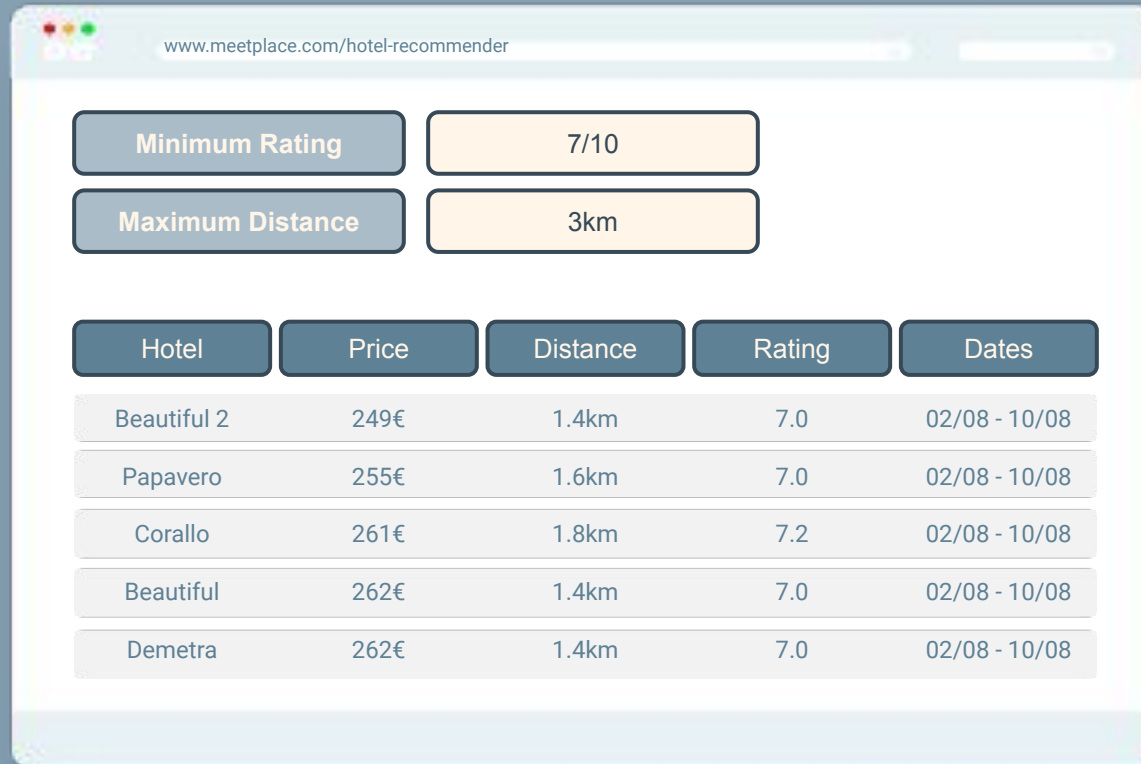
Product: MeetPlace V3 - the hotel recommender



The screenshot shows a web browser window with the address bar displaying `www.meetplace.com/hotel-recommender`. The page features a search interface with two rows of buttons. The first row contains a blue button labeled "Minimum Rating" and an orange button labeled "Choose minimum rating". The second row contains a blue button labeled "Maximum Distance" and an orange button labeled "Choose maximum distance". Two red arrows point to the orange buttons. Below these buttons is a table with five columns: "Hotel", "Price", "Distance", "Rating", and "Dates". The table has six empty rows for displaying results.

Hotel	Price	Distance	Rating	Dates

Product: MeetPlace V3 - the hotel recommender



The screenshot shows a web browser window with the URL `www.meetplace.com/hotel-recommender`. The interface includes two filter sections: 'Minimum Rating' set to 7/10 and 'Maximum Distance' set to 3km. Below these is a table of hotel recommendations with columns for Hotel, Price, Distance, Rating, and Dates. The table lists five hotels: Beautiful 2, Papavero, Corallo, Beautiful, and Demetra, all with a rating of 7.0 or higher and a distance of 1.4km or less.

Hotel	Price	Distance	Rating	Dates
Beautiful 2	249€	1.4km	7.0	02/08 - 10/08
Papavero	255€	1.6km	7.0	02/08 - 10/08
Corallo	261€	1.8km	7.2	02/08 - 10/08
Beautiful	262€	1.4km	7.0	02/08 - 10/08
Demetra	262€	1.4km	7.0	02/08 - 10/08

Product: MeetPlace V3 - the hotel recommender

Minimum rating of the hotel (scale of 10): 7

Maximum distance to the center (in km): 3

Destination: Rome

Departure date: 2021-08-02

Return date: 2021-08-10

New feature!

With this conditions, MeetPlace recommends:

	hotel_name	address	price_per_night_and_person	total_price_per_stay_and_person	distance_to_city_center_in_km	rating_scale_10
4	Beautiful Home 2	Via Gaeta 79	31.090000	249.0	1.4	7.0
6	Hotel Il Papavero	Via Castelfidardo 50	31.910000	255.0	1.6	7.0
7	Hotel Corallo	Via Palestro 44	32.650002	261.0	1.8	7.2
8	Beautiful Home	Via Goito, 17	32.720001	262.0	1.4	7.0
9	Hotel Demetra Capitolina	Via Principe Amedeo 58	32.730000	262.0	1.4	7.0
10	B&B Giovv Rome	Via Principe Amedeo 85 A	33.340000	267.0	1.4	7.6
12	Hotel Leone	Via Cavour, 47	35.759998	286.0	1.3	8.4
17	Guesthouse Alex II	Via dei Crociferi, 26	39.939999	319.0	1.8	7.8
18	59 Steps Trevi	Via Milazzo 3, scala B, 4th floor	40.279999	322.0	0.2	8.4
20	SunMoon	Via Principe Amedeo 58	40.910000	327.0	1.8	7.4

Business Problem 4

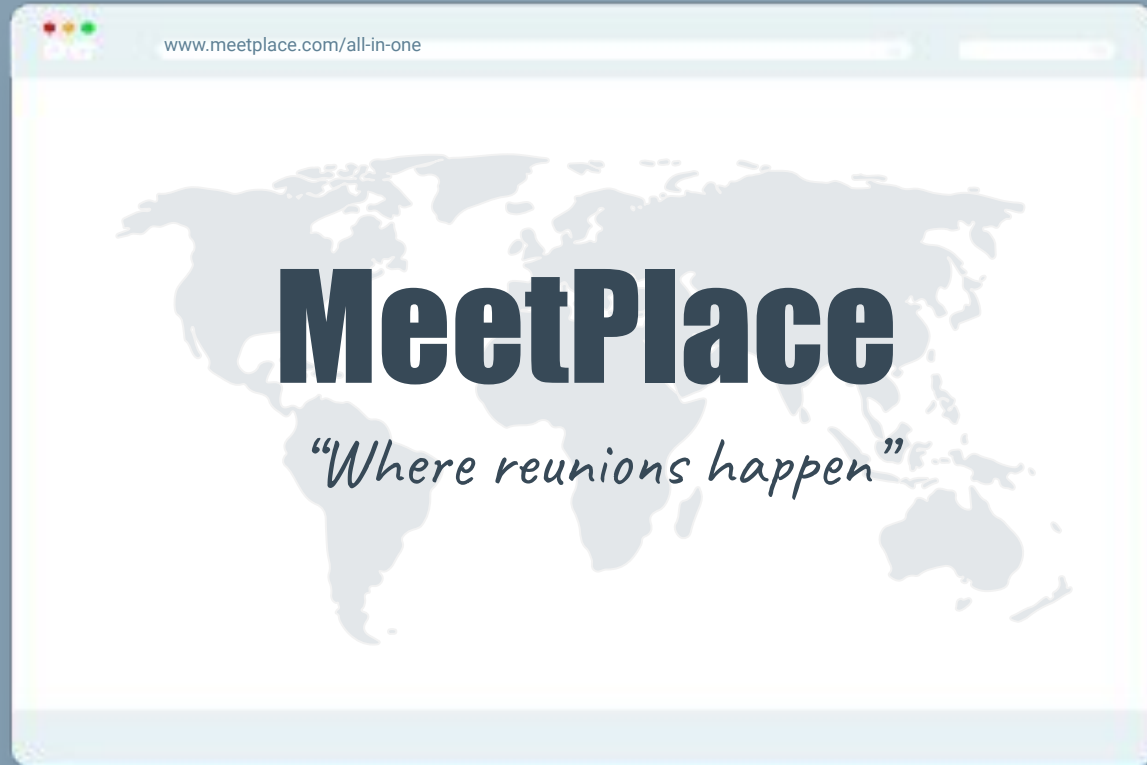
Right now we are choosing the cheapest destination according to flight prices!

Improvement: choose according to:



Flight price + Hotel price

THE FINAL PRODUCT



MeetPlace: “Where reunions happen”

The screenshot shows a web browser window with the URL `www.meetplace.com/all-in-one`. The background features a faint world map. The form is organized into several sections:

- Amount of origins:** A row of buttons labeled 1, 2, 3, 4, 5, 6, 7, 8, 9, and an ellipsis (...).
- Origin 1:** A button labeled "Choose Origin".
- Origin 2:** A button labeled "Choose Origin".
- Origin 3:** A button labeled "Choose Origin".
- Depart:** A button labeled "Choose Date".
- Return:** A button labeled "Choose Date".
- Min Rating:** A button labeled "Choose Rating".
- Max distance:** A button labeled "Choose Rating".

Red handwritten annotations with arrows point to the "Origin 1" button (labeled "Flight preferences") and the "Min Rating" button (labeled "Hotel preferences").

MeetPlace: “Where reunions happen”

The screenshot shows a web browser window with the URL `www.meetplace.com/all-in-one`. The background features a faint world map. The form is organized into several sections:

- Amount of origins:** A row of buttons labeled 1, 2, 3, 4, 5, 6, 7, 8, 9, and ... The button '3' is currently selected.
- Origin 1:** A button labeled 'Barcelona'.
- Origin 2:** A button labeled 'New York'.
- Origin 3:** A button labeled 'Buenos Aires'.
- Depart:** A button labeled '02/08/2021'.
- Return:** A button labeled '10/08/2021'.
- Min Rating:** A button labeled '7/10'.
- Max distance:** A button labeled '3km'.

Red handwritten annotations with arrows point to the 'Origin 1' button (labeled 'Flight preferences') and the 'Min Rating' button (labeled 'Hotel preferences').

MeetPlace: *"Where reunions happen"*

www.meetplace.com/flight-optimization

The cheapest place to meet is...

Destination	Flights Price per person	Avg Hotel Price per person	Total expenditure
Rome	416€	368€	785€
Madrid	432€	416€	849€
Miami	487€	536€	1.022€

[Click here for flight details!](#)



**New
feature!**



MeetPlace: *"Where reunions happen"*

www.meetplace.com/flight-optimization

The cheapest place to meet is...

Destination	Flights Price per person	Avg Hotel Price per person	Total expenditure
Rome	416€	368€	785€
Madrid	432€	416€	849€
Miami	487€	536€	1.022€

Click here for flight details!



MeetPlace: *"Where reunions happen"*



The screenshot shows a web browser window with the URL `www.meetplace.com/flight-optimization`. The main content area displays a summary for Rome: "Rome 1.250€ in total 416€/ person". Below this, a section titled "See flights details:" contains a table with flight information. The table has columns for From, To, Dept, Price, Return, and Price. Three flight options are listed: BCN to RMA (02-08, 20€, 10-08, 16€), BA to RMA (02-08, 392€, 10-08, 353€), and NYC to RMA (02-08, 276€, 10-08, 193€). In the bottom right corner, there is a link "Interested in HOTELS?" with a suitcase icon.

Rome 1.250€ in total 416€/ person

See flights details:

From	To	Dept	Price	Return	Price
BCN	RMA	02-08	20€	10-08	16€
BA	RMA	02-08	392€	10-08	353€
NYC	RMA	02-08	276€	10-08	193€

Interested in HOTELS?



MeetPlace: *"Where reunions happen"*




The screenshot shows a web browser window with the URL `www.meetplace.com/flight-optimization`. The page displays flight optimization results for Rome. A summary bar shows "Rome" in red, "1.250€ in total", and "416€/ person". Below this, the text "See flights details:" is followed by a table with flight details. The table has columns: From, To, Dept, Price, Return, and Price. The data rows are: BCN to RMA on 02-08 for 20€, returning 10-08 for 16€; BA to RMA on 02-08 for 392€, returning 10-08 for 353€; and NYC to RMA on 02-08 for 276€, returning 10-08 for 193€. At the bottom right, there is a link "Interested in HOTELS?" with a suitcase icon, which is highlighted by a red arrow.

Rome 1.250€ in total 416€/ person

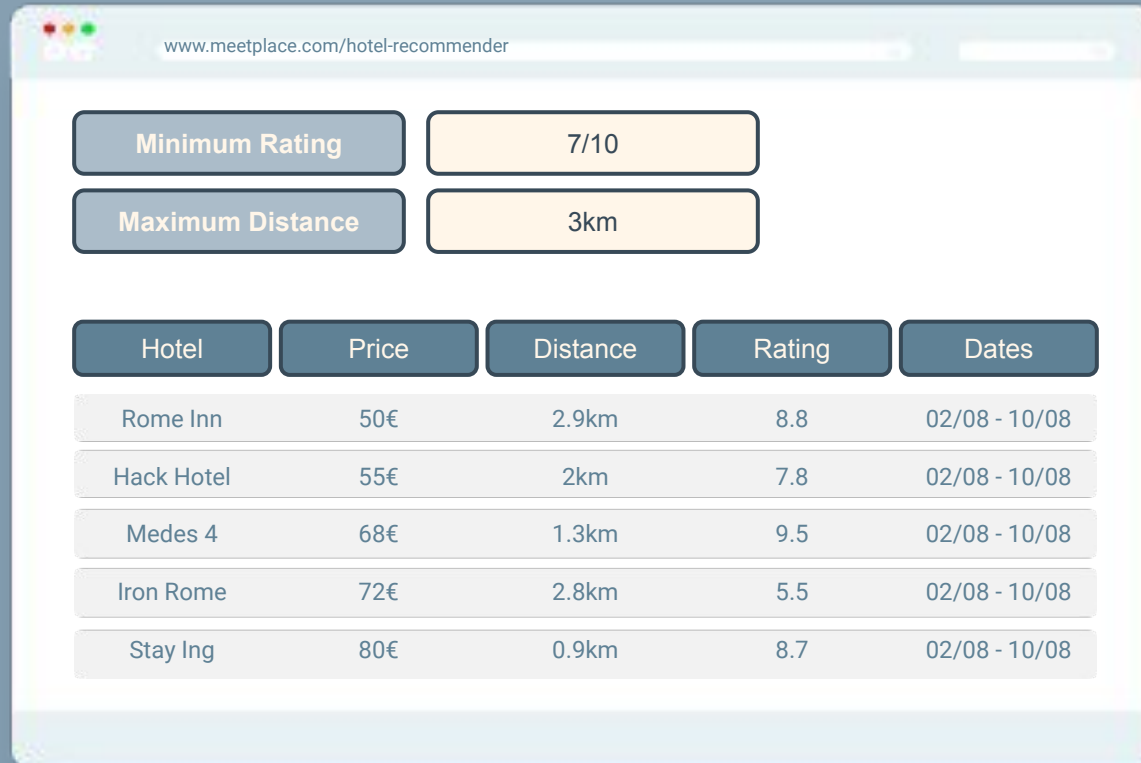
See flights details:

From	To	Dept	Price	Return	Price
BCN	RMA	02-08	20€	10-08	16€
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NYC	RMA	02-08	276€	10-08	193€

Interested in HOTELS?



MeetPlace: *"Where reunions happen"*



The screenshot shows a web browser window with the URL `www.meetplace.com/hotel-recommender`. The interface includes two filter sections: 'Minimum Rating' set to 7/10 and 'Maximum Distance' set to 3km. Below these is a table of hotel recommendations with columns for Hotel, Price, Distance, Rating, and Dates. The table lists five hotels: Rome Inn, Hack Hotel, Medes 4, Iron Rome, and Stay Ing, all with dates from 02/08 to 10/08.

Hotel	Price	Distance	Rating	Dates
Rome Inn	50€	2.9km	8.8	02/08 - 10/08
Hack Hotel	55€	2km	7.8	02/08 - 10/08
Medes 4	68€	1.3km	9.5	02/08 - 10/08
Iron Rome	72€	2.8km	5.5	02/08 - 10/08
Stay Ing	80€	0.9km	8.7	02/08 - 10/08

MeetPlace: *"Where reunions happen"*

```
From: ['Barcelona', 'New York City', 'Buenos Aires']
The cheapest place to meet is: Rome
Destination: Rome
Departure date: 2021-08-02
Return date: 2021-08-10
Minimum rating of hotels 7
Maximum distance to city center 3
Total expenditure (flight + average hotel price per stay): 784.55 €
```

	destination	flight_price_per_person	avg_price_per_stay_and_person	total_expenditure
0	Rome	416.67	367.88	784.55
1	Madrid	432.67	670.43	1103.10
2	Miami	486.67	536.00	1022.67

See the prices of each flight:

	departure_city	departure_date	departure_flight_price	destination_city	return_date	return_flight_price	price_departure_and_return
0	Barcelona	2021-08-02	20.0	Rome	2021-08-10	16.0	36.0
1	New York City	2021-08-02	276.0	Rome	2021-08-10	193.0	469.0
2	Buenos Aires	2021-08-02	392.0	Rome	2021-08-10	353.0	745.0

MeetPlace: *“Where reunions happen”*

With these conditions, MeetPlace recommends you the following hotels:

	hotel_name	address	price_per_night_and_person	total_price_per_stay_and_person	distance_to_city_center_in_km	rating_scale_10
0	Beautiful Home 2	Via Gaeta 79	31.090000	249.0	1.4	7.0
1	Hotel Il Papavero	Via Castelfidardo 50	31.910000	255.0	1.6	7.0
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5	B&B Giovy Rome	Via Principe Amedeo 85 A	33.340000	267.0	1.4	7.6
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8	59 Steps Trevi	24 Via Carlo Cattaneo	40.279999	322.0	0.2	8.4
9	SunMoon	Via Cavour, 85/A	40.910000	327.0	1.8	7.4

Further Steps



Flights with stopovers: The cheapest flight may not be direct. Example: BCN - RTM = 35 hours.



Accommodation Limits: Hotels checked only according to hotels.com website.



Accommodation price: Average of the 25 cheapest hotels according to preferences selected.



Running Time: SkyScanner only allows 50 requests per minute. First example took 12:30 mins.



Thank you for listening!

Special thanks to:

*Miguel, David and Jan. Anzi, Alberto, Desh, Elena,
Enne, Imanol, Joan, Jorge, Marta B, Natalia,
Neema, Nicolò and Thom.*