

---

```
165     select
166         a.Id,
167         a.Region,
168         a.ActivityDate,
169         a.TotalSteps,
170         a.TotalDistance_Kms,
171         a.Calories as DailyCalories,
172         b.Calories as ExtraCalories,
173         c.SedentaryMinutes,
174         c.LightlyActiveMinutes,
175         c.FairlyActiveMinutes,
176         c.VeryActiveMinutes,
177         c.SedentaryActiveDistance_Kms,
178         c.LightActiveDistance_Kms,
179         c.ModeratelyActiveDistance_Kms,
180         c.VeryActiveDistance_Kms,
181         s.TotalMinutesAsleep,
182         w.WeightKg,
183         w.BMI
184     from
185         dailyActivity_merged a
186     left join
187         dailyCalories_merged b
188         on a.Id = b.Id and a.ActivityDate = b.ActivityDate
189     left join
190         dailyIntensities_merged c
```

```

228      -- ===== Analysis =====
229
230      -- 1 - Total Usage by Region
231
232      Select
233          Region,
234          Sum(TotalSteps) as Total_Steps,
235          sum(TotalDistance_Kms) as Total_distance,
236          sum(DailyCalories) as Tota_calories,
237          Avg(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as AvgActiveMinutes
238      From
239          daily_joined_final
240      Group By
241          Region;
242
243      -- 2 - Top 10 Users

```

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Content: 

	Region	Total_Steps	Total_distance	Tota_calories	AvgActiveMinutes
►	North	1729479	1246.799996163696	511596	238.3535
	East	1752185	1266.7599973920733	526628	221.1435
	West	2043678	1468.629998208955	617866	224.1838
	South	1712735	1217.3300016913563	522769	230.8609

243 -- 2 - Top 10 Users

244

245 • Select

246 Id,

247 Region,

248 Sum(TotalSteps) as Total\_Steps

249 From

250 daily\_joined\_final

251 Group By

252 Id, Region

253 Order By

254 Total\_Steps Desc -- with asc, can be shown bottom performing as well.

255 Limit 10;

256

Result Grid |  Filter Rows:  | Export:  | Wrap Cell Content:  | Fetch rows: 

	Id	Region	Total_Steps
▶	8877689391	West	149932
	8877689391	North	139733
	8053475328	East	131162
	1503960366	West	125155
	8053475328	West	124847
	6962181067	West	113839
	8877689391	East	112091
	7086361926	West	108917
	8053475328	North	103712
	1503960366	South	99923

257 -- 3 - Bottom performing Region

258

259 • Select

260 Region,

261 Sum(TotalSteps) as Total\_Steps

262 From

263 daily\_joined\_final

264 Group By

265 Region

266 Order By

267 Total\_Steps asc

268 Limit 1;

269

Result Grid |  Filter Rows:  | Export:  | Wrap Cell Conte

	Region	Total_Steps
▶	South	1712735

```

70 -- 4 - Total Usage
71
72 • Select
73     Sum(TotalSteps) as Total_Steps,
74     sum(TotalDistance_Kms) as Total_distance,
75     sum(DailyCalories) as Tota_calories,
76     sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
77 From
78     daily_joined_final; -- This gives overall usage among the demographics like - (TotalSteps, TotalDistance_Kms, DailyCalories, Total_ActiveMinutes)
79
80 -- 5 - Highest usage (overall / Monthly trend)
81 -- Total Usage by date

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

Total_Steps	Total_distance	Tota_calories	Total_ActiveMinutes
7238077	5199.519993456081	2178859	216185

```

280 -- 5 - Highest usage (overall / Monthly trend)
281 -- Total Usage by date
282
283 • Select
284     ActivityDate,
285     Sum(TotalSteps) as Total_Steps,
286     sum(TotalDistance_Kms) as Total_distance,
287     sum(DailyCalories) as Tota_calories,
288     sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
289 From
290     daily_joined_final
291 Group By
292     ActivityDate
293 Order By
294     Total_Steps desc, Total_distance desc, Tota_calories desc, Total_ActiveMinutes desc
295 Limit 1;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows: |

ActivityDate	Total_Steps	Total_distance	Tota_calories	Total_ActiveMinutes
2016-04-30	319266	229.79999709129333	87010	10251

297 -- Total Usage by region

298

299 • Select

300 Region,

301 Sum(TotalSteps) as Total\_Steps,

302 sum(TotalDistance\_Kms) as Total\_distance,

303 sum(DailyCalories) as Tota\_calories,

304 sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total\_ActiveMinutes

305 From

306 daily\_joined\_final

307 Group By

308 Region

309 Order By

310 Region;

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Content: 

	Region	Total_Steps	Total_distance	Tota_calories	Total_ActiveMinutes
•	East	1752185	1266.7599973920733	526628	50863
	North	1729479	1246.799996163696	511596	51246
	South	1712735	1217.3300016913563	522769	53098
	West	2043678	1468.629998208955	617866	60978

312 -- Total Usage by Monthly Trend

313

314 • Select

315 month(ActivityDate) as Monthnum,

316 Sum(TotalSteps) as Total\_Steps,

317 sum(TotalDistance\_Kms) as Total\_Distance,

318 sum(DailyCalories) as Tota\_Calories,

319 sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total\_ActiveMinutes

320 From



321 daily\_joined\_final

322 Group By

323 MonthNum

324 Order By

325 MonthNum;

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Content: 

	Monthnum	Total_Steps	Total_Distance	Tota_Calories	Total_ActiveMinutes
▶	1	154972	110.83999913930893	58451	5057
	2	178762	126.78999981284142	58634	5636
	3	225615	162.10999966599047	63902	6415
	4	4761760	3418.7199982255697	1428436	143554
	5	486683	338.560000596568	151237	13203
	6	201266	147.63000011444092	61906	6245
	7	191780	138.4900003671646	58270	5773
	8	176847	129.96999955177307	55616	5513
	9	208964	152.15000009536743	56506	6113
	10	191561	137.6199976503849	51301	5347
	11	164564	121.69999933242798	46010	4865

Result 11 ×

```

327 -- 6 - Average Active time
328
329 • Select
330     avg(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Avg_ActiveMinutes -- combined all activities
331 From
332     daily_joined_final;
333
334 -- 7 - Usage trend (6 months)
335
336 • Select
337     date_format(ActivityDate, '%Y,%m') As MonthYear,

```

Result Grid | Filter Rows:  | Export: | Wrap Cell Content:

Avg_ActiveMinutes
228.2841

```

334 -- 7 - Usage trend (6 months)
335
336 • Select
337     date_format(ActivityDate, '%Y,%m') As MonthYear,
338     Sum(TotalSteps) as Total_Steps,
339     sum(TotalDistance_Kms) as Total_Distance,
340     sum(DailyCalories) as Tota_Calories,
341     sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
342 From
343     daily_joined_final
344 group by MonthYear
345 Order By MonthYear
346 Limit 6;
347

```

Result Grid | Filter Rows:  | Export: | Wrap Cell Content:

Avg_ActiveMinutes
228.2841

```

348      -- Usage trend Weekly
349
350  •  Select
351      DAYNAME(ActivityDate) As DayOfWeek,
352      Sum(TotalSteps) as Total_Steps,
353      sum(TotalDistance_Kms) as Total_Distance,
354      sum(DailyCalories) as Tota_Calories,
355      sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
356  From
357      daily_joined_final
358  group by
359      DayOfWeek
360  Order By
361      field(DayOfWeek, 'Monday', 'Tuesday', 'Wednesday', 'Thursday', 'Friday', 'Saturday', 'Sunday');

```

Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell Content:					
	DayOfWeek	Total_Steps	Total_Distance	Tota_Calories	Total_ActiveMinutes
▶	Monday	825100	588.9399992097169	241146	23965
	Tuesday	1093076	784.5599966645241	343293	33071
	Wednesday	981913	707.089998582378	291547	28653
	Thursday	1018500	731.5200039595366	302462	29767
	Friday	1116067	794.7599976696074	353958	35333
	Saturday	1269908	911.979997921735	357076	38131
	Sunday	933513	680.6699994485825	289377	27265

```

363      -- Hourly Usage
364
365  •  Select
366      Hour(ActivityDate) As HourOfDay,
367      Sum(TotalSteps) as Total_Steps,
368      sum(TotalDistance_Kms) as Total_Distance,
369      sum(DailyCalories) as Tota_Calories,
370      sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
371  From
372      daily_joined_final
373  group by
374      HourOfDay
375  Order By
376      HourOfDay;






```

Result Grid     Filter Rows: <input type="text"/>   Export:    Wrap Cell Content:					
	HourOfDay	Total_Steps	Total_Distance	Tota_Calories	Total_ActiveMinutes
▶	0	7238077	5199.519993456081	2178859	216185

```

378 -- 8 - Top/bottom performing month (Also, Region can be added)
379 -- Top performing Month
380
381 • Select
382     Region,
383     date_format(ActivityDate, '%Y,%m') As MonthYear,
384     Sum(TotalSteps) as Total_Steps,
385     sum(TotalDistance_Kms) as Total_Distance,
386     sum(DailyCalories) as Tota_Calories,
387     sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
388 From
389     daily_joined_final
390 group by
391     Region, MonthYear
392 Order By
393     Total_ActiveMinutes desc, Total_Steps desc, Total_Distance desc, Tota_Calories desc
394 Limit 1;

```


Result Grid   Filter Rows:  Export:  Wrap Cell Content:  Fetch rows: 

	Region	MonthYear	Total_Steps	Total_Distance	Tota_Calories	Total_ActiveMinutes
•	West	2016,04	1307399	928.9400008935481	391937	40163

```

396 -- Bottom performing Month
397
398 • Select
399     date_format(ActivityDate, '%Y,%m') As MonthYear,
400     Sum(TotalSteps) as Total_Steps,
401     sum(TotalDistance_Kms) as Total_Distance,
402     sum(DailyCalories) as Tota_Calories,
403     sum(LightlyActiveMinutes + FairlyActiveMinutes + VeryActiveMinutes) as Total_ActiveMinutes
404 From
405     daily_joined_final
406 group by
407     MonthYear
408 Order By
409     Total_ActiveMinutes asc, Total_Steps asc, Total_Distance asc, Tota_Calories asc
410 Limit 1;
411
412 -- 9 - Weekly Distance consistency

```

< Result Grid   Filter Rows:  Export:  Wrap Cell Content:  Fetch rows: 

	MonthYear	Total_Steps	Total_Distance	Tota_Calories	Total_ActiveMinutes
►	2016,11	164564	121.69999933242798	46010	4865



```

413
414 • Select
415     Id,
416     DAYNAME(ActivityDate) As DayOfWeek,
417     sum(VeryActiveDistance_Kms + ModeratelyActiveDistance_Kms + LightActiveDistance_Kms + SedentaryActiveDistance_Kms) as Total_ActiveDistance_Kms
418 from
419     daily_joined_final
420 Group By
421     Id , DayOfWeek
422 Order By
423     Total_ActiveDistance_Kms desc
424 Limit 10;
425
426 -- 10 - Intensity trend
427

```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:	
	Id	DayOfWeek	Total_ActiveDistance_Kms				
▶	8877689391	Saturday	86.92999980971217				
	2873212765	Saturday	68.71000142395496				
	8877689391	Sunday	64.19000049121678				
	8877689391	Thursday	58.439999509602785				
	8877689391	Tuesday	58.31000013649464				
	8053475328	Sunday	56.75000059604645				
	8877689391	Wednesday	56.320000261068344				

Result 18 x

```

426 -- 10 - Intensity trend
427
428 • Select
429     Id,
430     DAYNAME(ActivityHour) As DayOfWeek,
431     Sum(TotalIntensity) as Total_Intensity
432 from
433     hourly_activity_final
434 where
435     TotalIntensity is not null -- To remove null values
436 Group By
437     Id, DayOfWeek
438 Order by
439     Total_Intensity desc;
440
441 -- 11 - Average daily steps
442

```

Result Grid				Filter Rows:	Export:	Wrap Cell Content:	
	Id	DayOfWeek	Total_Intensity				
▶	4319703577	Thursday	954				
	2026352035	Thursday	950				
	2022484408	Thursday	916				
	1503960366	Thursday	866				
	4558609924	Thursday	856				
	2873212765	Thursday	792				
	3977333714	Thursday	792				

Result 19 x

441 -- 11 - Average daily steps

442

443 • Select

444 DAYNAME(ActivityDate) As DayOfWeek,

445 Avg(TotalSteps) as Avg\_TotalSteps

446 From

447 daily\_joined\_final

448 Group By

449 DayOfWeek

450 Order By

451 Avg\_TotalSteps desc;

452

453 -- 12 - Duration

454

Result Grid |   Filter Rows:  | Export:  | Wrap Cell Content: 




	DayOfWeek	Avg_TotalSteps
•	Saturday	8409.9868
	Thursday	7834.6154
	Wednesday	7731.5984
	Sunday	7468.1040
	Monday	7366.9643
	Friday	7342.5461
	Tuesday	7287.1733

Result 20 ×


```

453      -- 12 - Duration
454
455      • Select
456          Id,
457          date(ActivityHour) as ActivityDate,
458          count(*) as ActiveHours
459      From
460          hourly_activity_final
461      where
462          StepTotal > 0 -- Only hours with a
463      Group By
464          Id, ActivityDate
465      Order By
466          ActiveHours desc;
467
468      -- 13 Most Active Time of Day - time-based
469      -- time-based patterns

```

Result Grid |   Filter Rows:  | Export: 






	Id	ActivityDate	ActiveHours
▶	1644430081	2016-06-05	48
	1644430081	2016-08-05	48
	1644430081	2016-09-05	46
	4319703577	2016-06-05	46
	1503960366	2016-05-05	44
	1503960366	2016-03-05	44
	4445114986	2016-06-05	44

Result 21 × 

```

468 -- 13 Most Active Time of Day - time-based patterns(Also Region wise)
469 -- time-based patterns
470
471 • Select
472     Hour(ActivityHour) As HourOfDay,
473     sum(StepTotal) as Total_Step
474 From
475     hourly_activity_final
476 Group By
477     HourOfDay
478 Order By
479     Total_Step Desc
480 Limit 1;
481
482 -- time-based patterns Region wise
483
484 • Select

```




<		
Result Grid		 Filter Rows: <input type="text"/>
Export:  Wrap Cell Content:  Fetch rows: 		
	HourOfDay	Total_Step
▶	10	298349

```

482 -- time-based patterns Region wise
483
484 • Select
485     d.Region,
486     Hour(ActivityHour) as HourOfDay,
487     sum(StepTotal) as Total_Step
488 From
489     hourly_activity_final h
490 Join
491     daily_joined_final d
492 on h.Id = d.Id
493 Group By
494     d.Region, HourOfDay
495 Order By
496     d.Region, Total_Step Desc;
497
498 -- 14 - Highest calorie, steps, distance, intensity

```

<

Result Grid |   Filter Rows:  | Exports:  | Wrap Cell Co

	Region	HourOfDay	Total_Step
▶	East	19	2259575
	East	10	2257735
	East	14	2255979
	East	18	2139041
	East	17	1995269
	East	16	1911360
	East	13	1848136

Result 23 ×