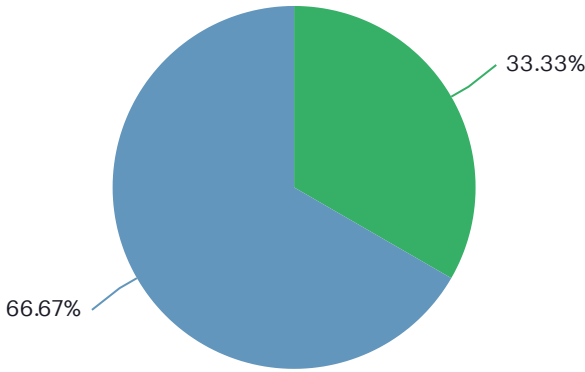# IT Help Desk Data Analysis.

Insufficient use of machine learning in service desk operations and lack of communication can cause inefficiencies in many areas resulting to customer dissatisfaction .Automate assigning of tickets, train IT support staff how to handle tickets efficiently and effectively to reduce cost on incident management and improve quality of service.

Avg days to resolve ticket types

Ticket with issue has less resolution time while request tickets take longer to resolve. I Recommendation reviewing or implementing incident management practice ,focusing on machine learning solutions to reduce the during of resolving incidents. Optimize and Automate processes.
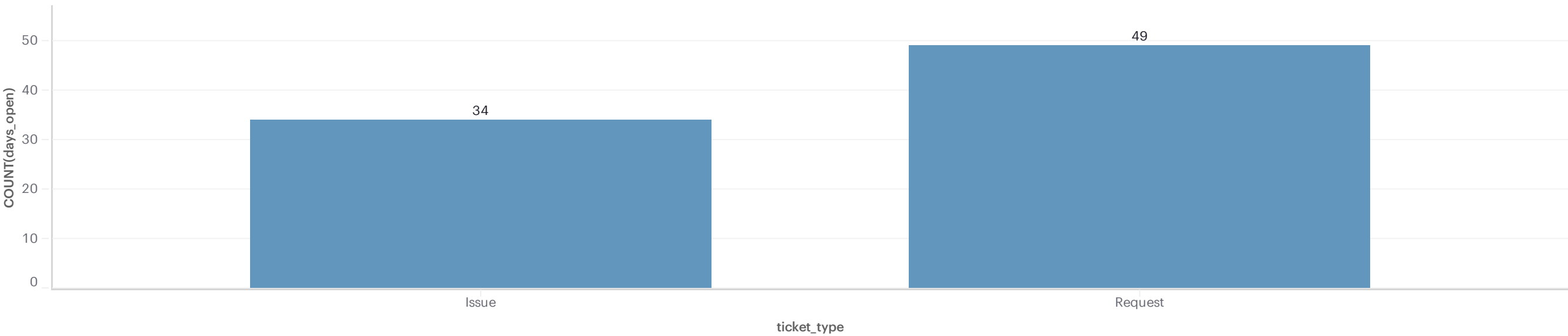

ticket_type ● Issue ● Request

- 33.33%
- 66.67%

Number days open for each ticket type

Tickets with issue can be resolve faster by implementing and customizing the ITIL framework to fit the business needs.
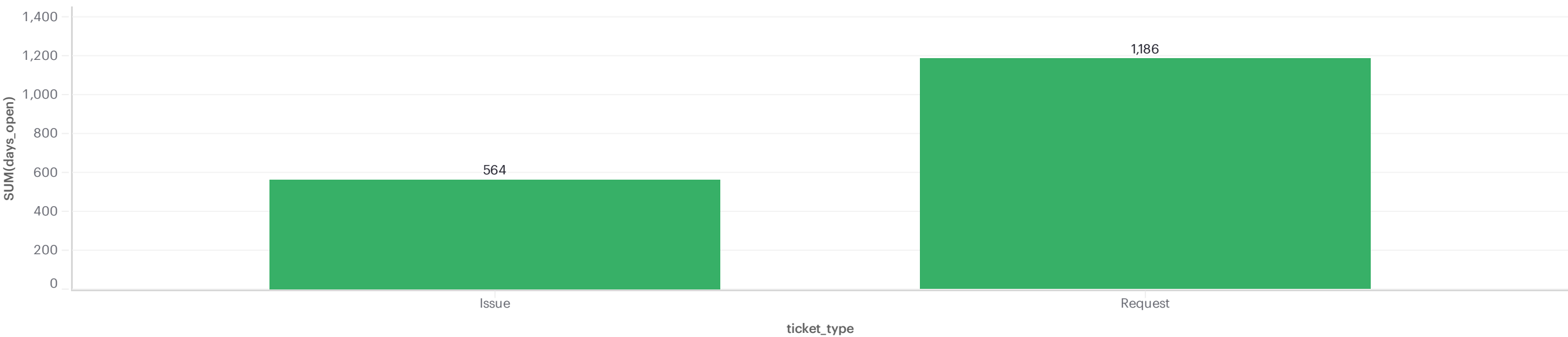
● Count of days_open

- Issue: 34
- Request: 49

ticket_type / COUNT(days_open)

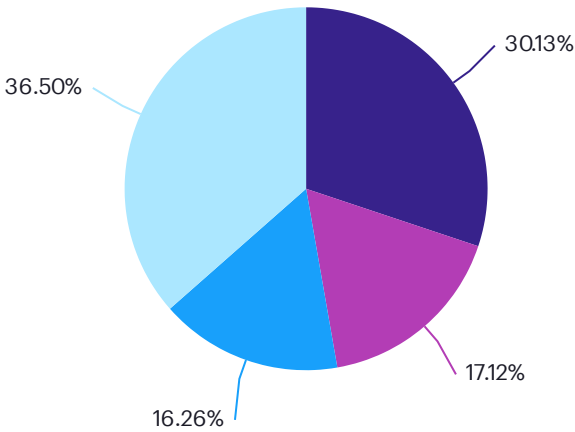## Number of open ticket type

I recommend proper documentation of resolved tickets and the steps followed to resolved the incidents. And customer satisfaction survey would help reduce the time to resolve repeated incidents.

● days_open

- Issue: 564
- Request: 1,186

ticket_type / SUM(days_open)

Number of Tickets Based on Priority

Majority of the tickets are of high priority implying we could make use of documented resolved incidents to reduce time spent on resolving high priority tickets. Unassigned tickets is second largest thus I recommended automating the process by dispatching tickets automatically to responsible team and to use tools like splunk for monitoring.

priority ● 0 - Unassigned ● 1 - Low ● 2 - Medium ● 3 - High

- 30.13%
- 17.12%
- 16.26%
- 36.50%

Count of Priority and Ticket types

Both issue an request tickets has a lot of tickets on high and unassigned priority level

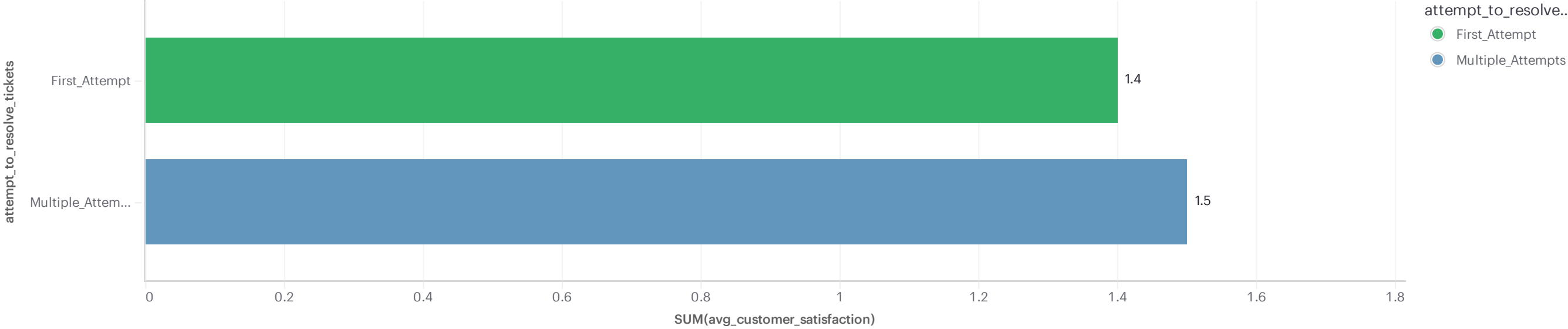| T ticket_type COUNT DISTINCT: 2	T priority COUNT DISTINCT: 4	# count_of_tickets SUM: 100000 AVG: 12500 MIN: 4073 MAX: 27461
Request	3 - High	27461
Request	0 - Unassigned	22641
Request	1 - Low	12787
Request	2 - Medium	12185
Issue	3 - High	9037
Issue	0 - Unassigned	7486
Issue	1 - Low	4330
Issue	2 - Medium	4073

count_of_tickets 4073 — 27461

Page 1 of 1   Showing rows 1-8 of 8

Customer satisfaction of resolved tickets based on the number of attempt.

First attempt does not determine the customers satisfaction base on the chart, tickets which were resolved on multiple attempt are more satisfied customers compare to first attempt. I recommend getting feedback from customers through phone call and survey immediately after resolving a ticket. Human touch can influence customer satisfaction.

attempt_to_resolve... ● First_Attempt ● Multiple_Attempts

- First_Attempt: 1.4
- Multiple_Attem...: 1.5

SUM(avg_customer_satisfaction)

Prioritization Effectiveness.

Tickets with high priority have use 6 days to resolve tickets and looking at the number of tickets ,I think implementing efficient incident and problem management techniques would reduce the days even more.

T priority COUNT DISTINCT: 4	# avg_days_of_resolution SUM: 29 AVG: 7.25 MIN: 6 MAX: 9	# total_tickets SUM: 100000 AVG: 25000 MIN: 16258 MAX: 36498
3 - High	6	36498
0 - Unassigned	7	30127
1 - Low	9	17117
2 - Medium	7	16258

avg_days_of_resolution 6 — 9
total_tickets 16258 — 36498

Page 1 of 1   Showing rows 1-4 of 4