Lab - 6 DB_Project_Assignment_2-Noun Analysis

Name: Ronit Jain (202001081)

Nipun Shah (202001096)

Group No: 2

Section No: 6

Team Id: 6.1

Case Study

Beach Activity Management System:

All beach activity-related records should be created in this database. The beach-related activities like scuba diving, snorkeling, paragliding, flyboarding, windsurfing, and so on. Precautionary things like helmets, swimsuits, quality shoes, gloves, etc., for particular activities, must be appropriately managed for all customers. The other things related to taking pictures and videos are also included in this database.

Section - 2 Noun Analysis

1. All Extracted Nouns and Verbs
2. Accepted nouns and Verbs list
3. Rejected Noun and Verbs List

1. All Extracted Nouns and Verbs

S.No.	Noun	Verbs
1	Management	manage
2	Management Systems	systematic

3	data	document
4	list	work
5	activities	list
6	manage	Risk
7	customers	demands
8	beaches	need
9	equipments	need
10	equipment	track
11	trainer	work
12	customer	experience
13	databases	improve
14	service providers	need
15	safety	proper
16	intended audience	keep
17	accidents	chances
18	Safety	operations
19	database	improve
20	intended audience	group
21	beaches	main
22	beaches	attraction
23	user	access
24	activities	business
25	Youth	young
26	customer	safety
27	adventurous	more

28	youth	interested
29	adult	interested
30	activities	fun
31	records	holds
32	services	improvement
33	participants	decide
34	participate	actions
35	equipment	maintains
36	operation	smooth
37	activities	safe
38	Service providers	learn
39	participation	improve
40	customer's activities	show
41	service	plan
42	activities	charges
43	product	designed
44	clients	more
45	customers	more
46	service	enhance
47	service	improve
48	People	attracted
49	sport	adventure
50	Beach activities	prevalent
51	Beach activities	adventurous
52	customers	attract

53	prices	reasonable
54	youth	enthusiastic
55	watersports	interested
56	Young generation	experience
57	beaches	adventure
58	trips	planning
59	beaches	visit
60	beaches	relax
61	Service	profits
62	customers	improve
63	Scuba Diving	
64	Snorkeling	
65	Paragliding	
66	Parasailing	
67	Flyboarding	
68	Windsurfing	
69	Beach Volleyball	
70	Jet Ski	
71	Kite surfing	
72	Beach Sprint rowing	
73	Banana Ride	
74	Speed Boat	
75	Dolphin Exploration	
75	FootVolley	
76	Beach Camping	

77	Swimming with Sharks	
78	Sailing	
79	activity	needs
80	administration	information
81	administrators	edit
82	administrators	create
83	customers	select
84	youth	invest
85	event	management
86	events	bookking
87	software	help
88	software	manage
89	event	collide
90	arrangements	demand
91	events	collide
92	customer	demand
93	Software	track
94	equipment	used
95	workers	service
96	software	inform
97	administrators	assistance
98	assistance	unavailable
99	customers	training
100	salary	maintain
101	customers	decision-making

102	equipment	missing
103	equipment	damaged
104	equipment	unavailable
105	customer	friendly
106	equipment	maintain
107	equipment	servicing
108	safety	measures
109	equipment	checking
110	expenses	track
111	activity	Maximum participation
112	customers	feedback
113	database	update
114	images	keep
115	videos	keep
116	activity	postpone
117	memory	safe
118	booking	reschedule
119	Booking	cancel
120	technical	difficulty
121	background	reading
122	zones	created
123	water animals	come
124	Trainer	trains
125	Trainer	activity

2. Accepted Nouns and Verbs List

S.No.	Candidate Entity Set	Candidate Attribute Set	Candidate Relationship Set
1	Customer	Customer_id, Customer_name, Date of birth: Age, Height, Weight, Gender, Activity_id, Booking_id	
2	Administrator	Admin_id, Admin_name	
3	Staff	Staff_id staff_name Department	
4	Trainers	Trainer_id, Trainer_name, Activity_id Activity_name	
5	Equipment	Equip_id Equip_name Equip_quantity Equip_condition Date_of_Purchase	
6	Security	Security_id, Security_name,	
7	Activities	Activity_id Activity_name Equip_id	

		Trainer_id Activity_charge Activity_time	
8	Booking	Booking_id, Booking_date, Booking_time, Customer_id Payment_id: Payment_method Payment_Amount Activity_id	
9	Event	Event_id Event_name Event_time Event_date Event_requirement Admin_id Staff_id Booking_id	

3. Rejected Noun and Verbs List

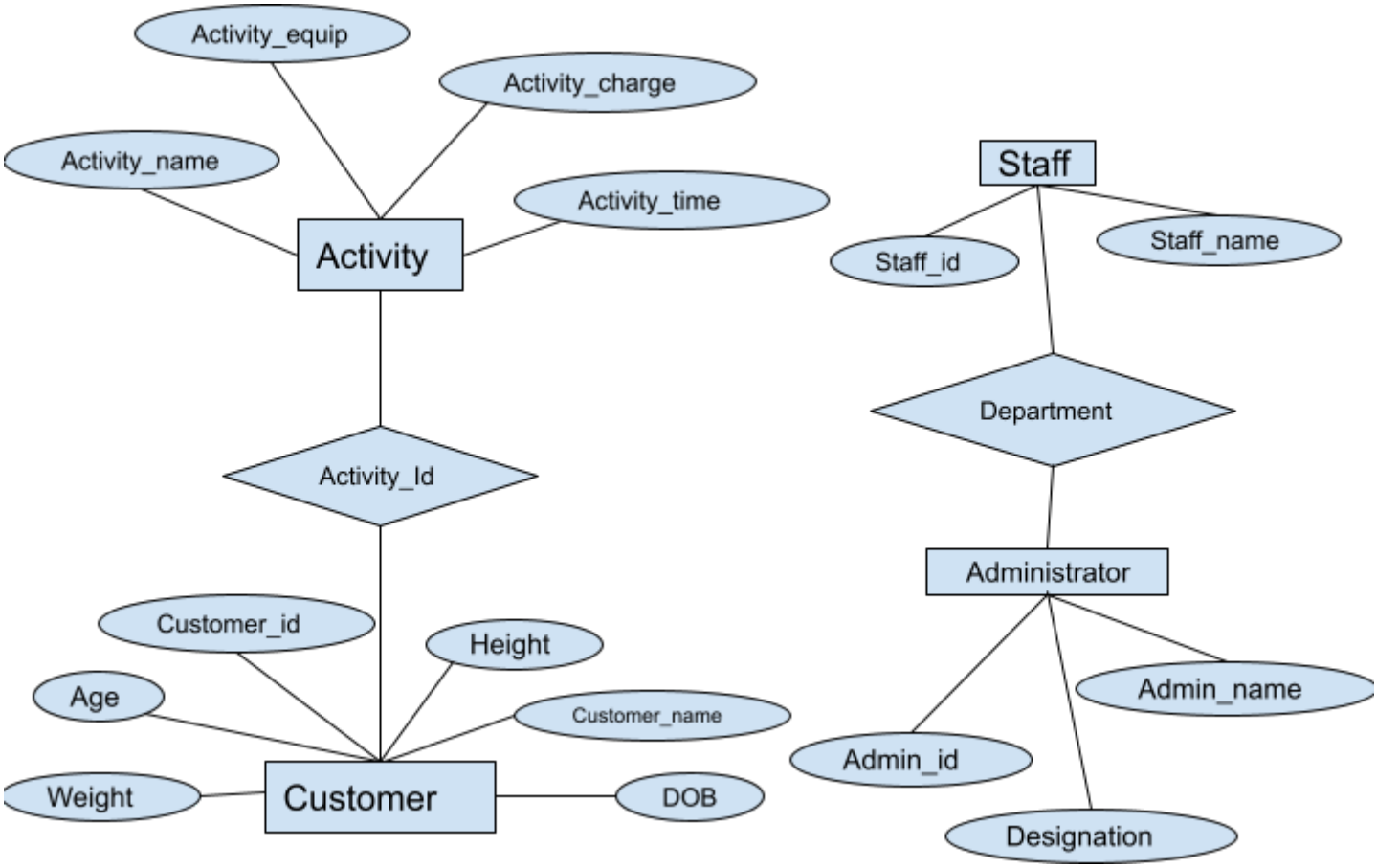
Sr. No.	Noun	Reject Reason
1	Management	Duplicate
2	Management Systems	General
3	data	duplicate
4	list	duplicate
6	manage	General
8	beaches	General
13	database	General
14	service providers	Duplicate
15	intended audience	Duplicate

16	accidents	General
17	Youth	duplicate
18	adventurous	General
19	adult	duplicate
20	records	General
21	operation	Irrelevant
22	product	Irrelevant
23	clients	Duplicate
24	service	Duplicate
25	People	General
26	sport	General
27	prices	Vague
28	watersports	Vague
29	Young generation	Vague
30	trips	duplicate
31	Scuba Diving	Vague
32	Snorkeling	Vague
33	Paragliding	Vague
34	Parasailing	Vague
35	Flyboarding	Vague
36	Windsurfing	Vague
37	Beach Volleyball	Vague
38	Jet Ski	Vague
39	Kite surfing	Vague

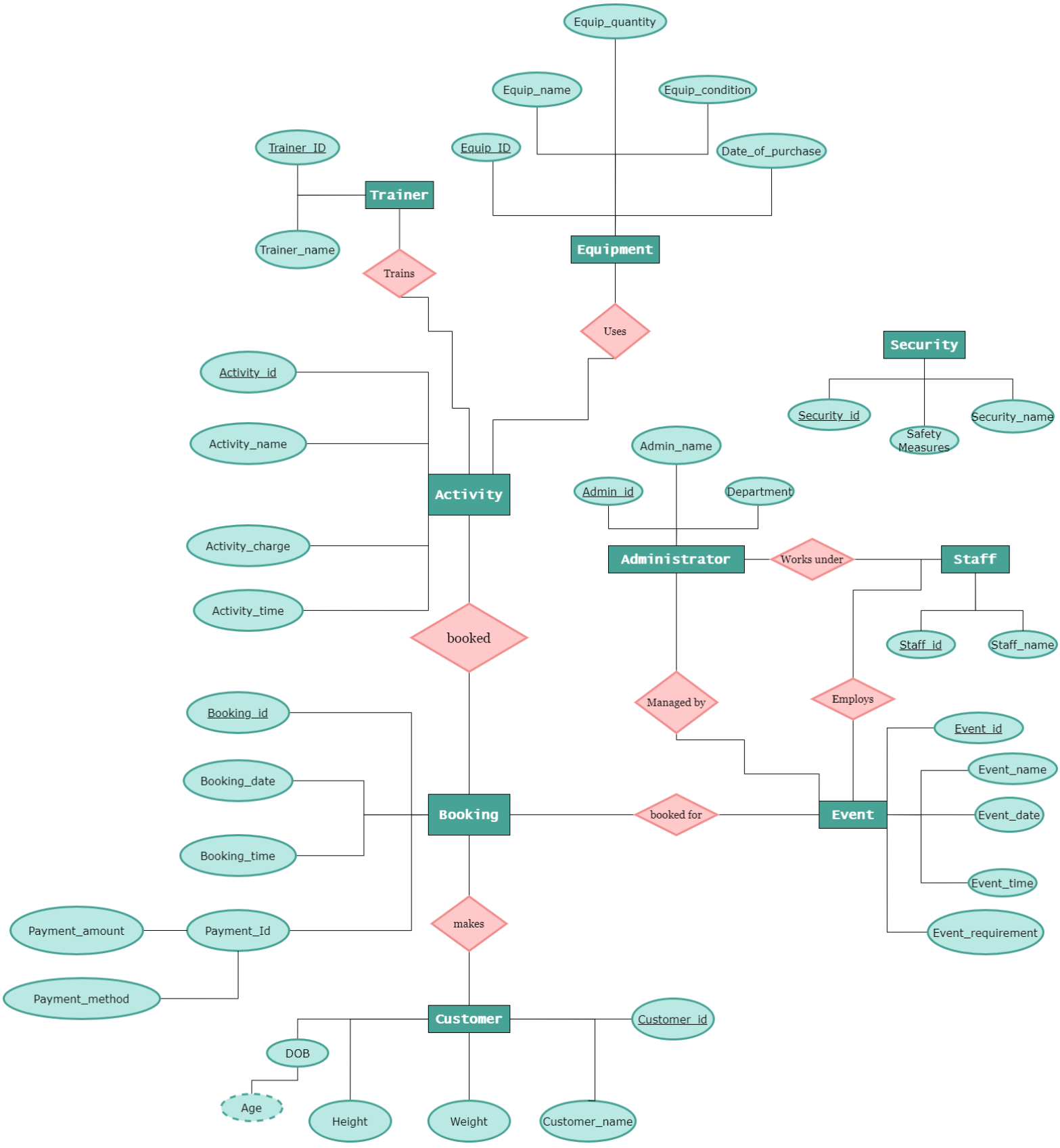
40	Beach Sprint rowing	Vague
41	Banana Ride	Vague
42	Speed Boat	Vague
43	Dolphin Exploration	Vague
44	FootVolley	Vague
45	Beach Camping	Vague
46	Swimming with Sharks	Vague
47	Sailing	irrelevant
48	software	General
49	arrangements	Duplicate
50	assistance	Associations
51	salary	Vague
52	expenses	Vague
53	images	Vague
54	videos	Vague
55	memory	Vague
56	technical	General
57	background	General
58	zones	irrelevant
59	water animals	irrelevant

ER Diagram:

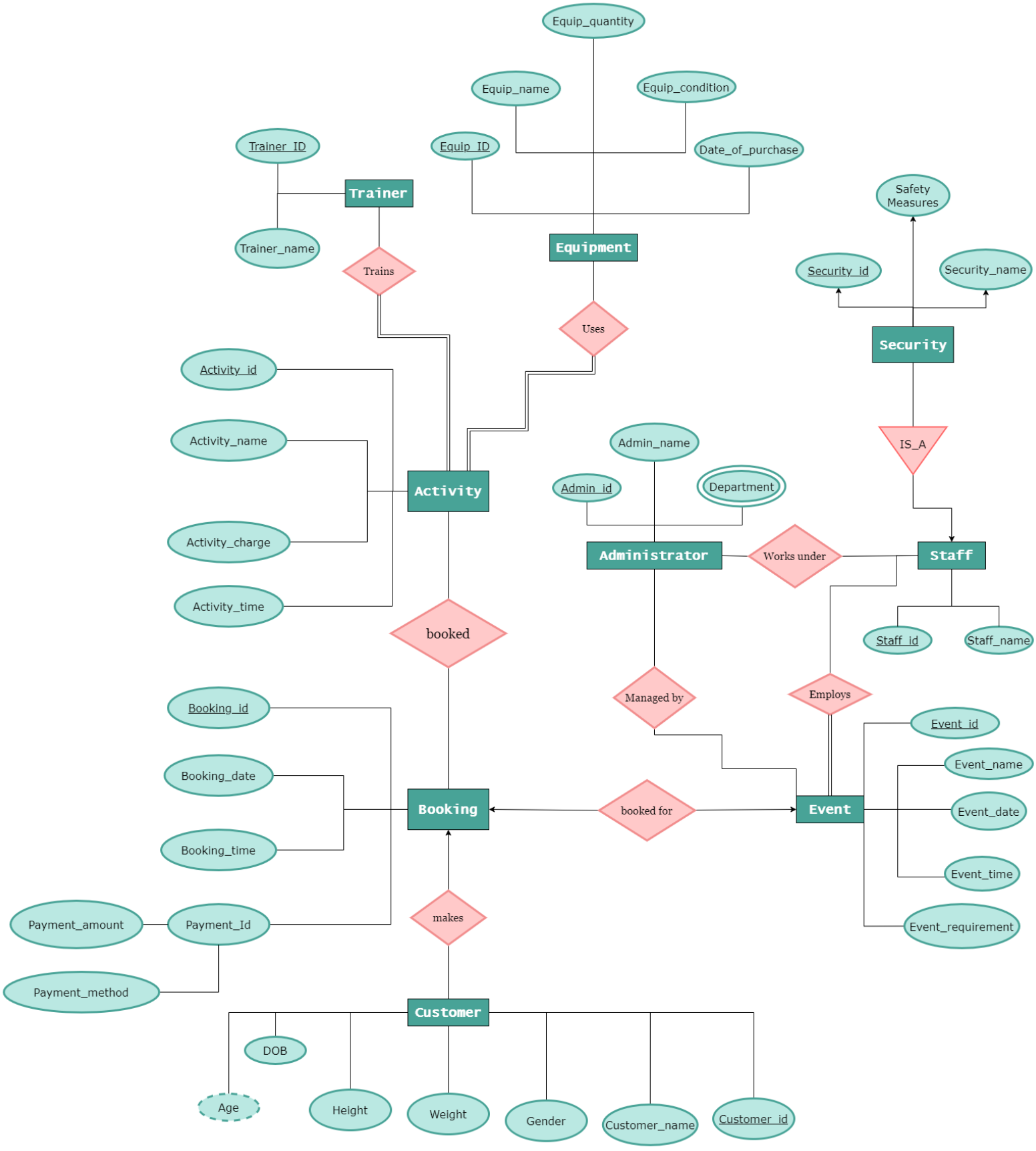
Version 0:



Version 1:


Equip_quantity
Equip_name
Equip_condition
Trainer_ID
Equip_ID
Date_of_purchase
Trainer
Trainer_name
Equipment
Trains
Uses
Security
Activity_id
Security_id
Security_name
Safety Measures
Activity_name
Admin_name
Activity
Admin_id
Department
Activity_charge
Administrator
Works under
Staff
Activity_time
booked
Staff_id
Staff_name
Booking_id
Managed by
Employs
Event_id
Booking_date
Event_name
Booking
booked for
Event
Event_date
Booking_time
Event_time
Payment_amount
Payment_Id
makes
Event_requirement
Payment_method
Customer
Customer_id
DOB
Age
Height
Weight
Customer_name

Version 2:


Equip_quantity
Equip_name
Equip_condition
Trainer_ID
Equip_ID
Date_of_purchase
Trainer
Trainer_name
Trains
Equipment
Uses
Safety Measures
Security_id
Security_name
Security
Activity_id
Activity_name
Activity_charge
Activity_time
Activity
IS_A
Admin_name
Admin_id
Department
Administrator
Works under
Staff
Staff_id
Staff_name
booked
Booking_id
Booking_date
Booking_time
Booking
Managed by
Employs
booked for
Event_id
Event_name
Event_date
Event_time
Event_requirement
Event
Payment_amount
Payment_Id
Payment_method
makes
Customer
DOB
Age
Height
Weight
Gender
Customer_name
Customer_id

Updated ER

S.No.	Entity	Attribute	Relationship
1	Customer	Customer_id, Customer_name, Date of birth: Age, Height, Weight, Gender, Activity_id, Booking_id	makes
2	Administrator	Admin_id, Admin_name	
3	Manager	Manager_id, Manager_name, Department	Manages, managed by, works under
4	Staff	Staff_id staff_name Department	Work under, Employs, is a
5	Trainers	Trainer_id, Trainer_name, Activity_id Activity_name	Trains, manages
6	Equipment	Equip_id Equip_name Equip_quantity Equip_condition Date_of_Purchase	Uses, manages
7	Security	Security_id, Security_name,	ISA

8	Activities	Activity_id Activity_name Equip_id Trainer_id Activity_charge Activity_time	Booked, Manages, Uses, trains
9	Booking	Booking_id, Booking_date, Booking_time, Slot_availability, Customer_id Payment_id: Payment_method Payment_Amount Activity_id	Booked, mannages, booked for, makes
10	Event	Event_id Event_name Event_time Event_date Event_requirement Manager_id Staff_id Booking_id	Booked for, managed by, employs

Relationship Types:

1) Binary relationship:

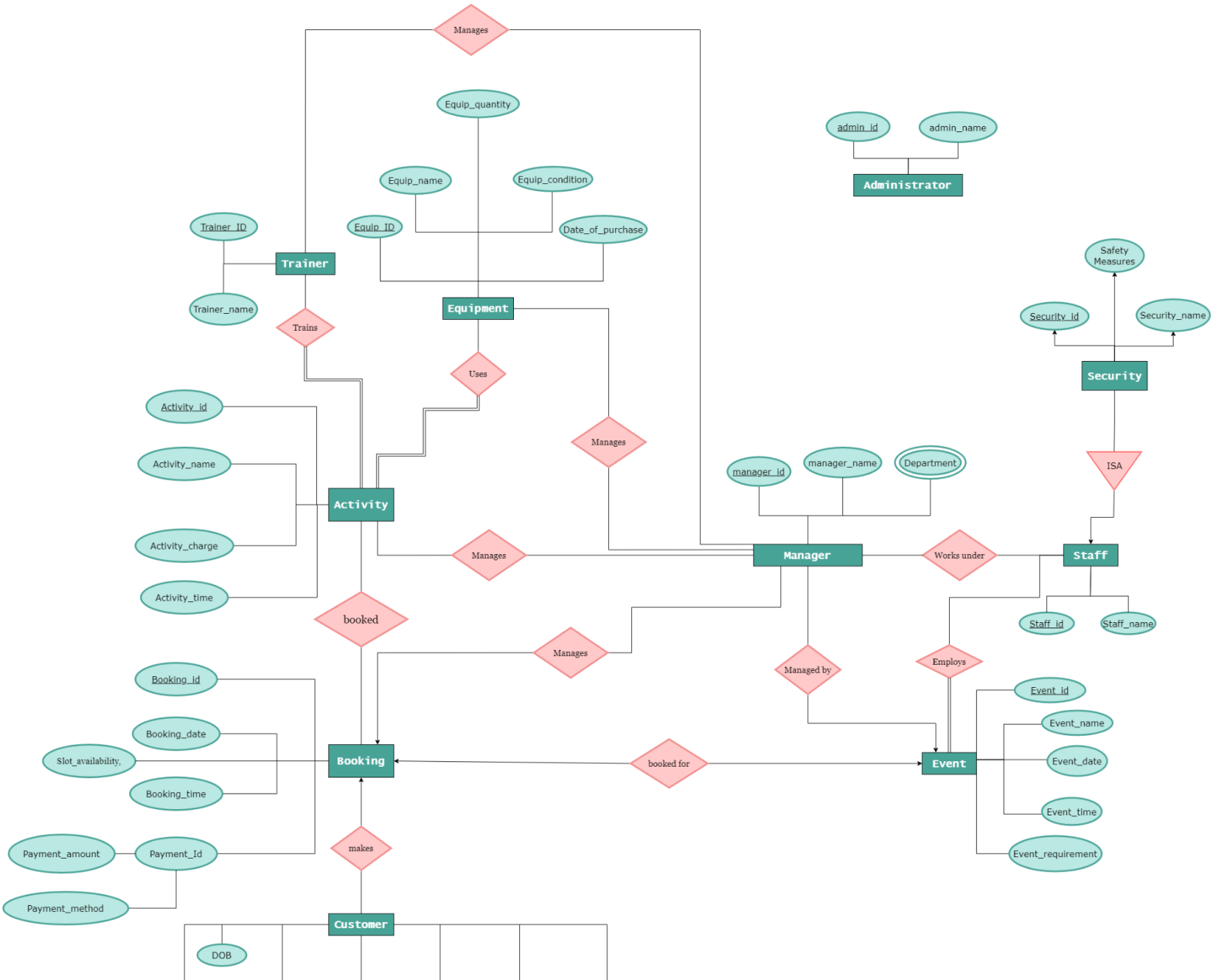
a. Makes
b. Booked
c. Booked for
d. Manages
e. Trains
f. Uses
g. works under
h. Employs

2) Ternary relationship:

We don't have any ternary relationship.

3) Hierarchy relationship:

ISA is our hierarchy relationship: a security entity is a child of a staff entity.

- Here, we have created payment as an attribute of Booking. We can create it as an entity, but we created it as an attribute to booking because we can connect the payment received to the corresponding booking. This will help us in having more proper management of the amount.

Version 3: