

CSCI 5408: Assignment 1**Problem 1**

Entity	Reason for Selection
Event	Park organizes various events
Visitor	Multiple visitors visit parks
Park	Parks are supporting entity for other weak entities
Department	Each park has departments
Hotel	Parks incorporate hotels
Staff_member	Parks have multiple staff members
Dependent	Weak entity belongs to staff members
Reservations	Event makes reservations
Rules	Park makes up the rules
Facilities	Park has various facilities
Invoices	Staff members generate invoices
Amenities	Parks have many amenities

Optimizing:

- Splitting the composite attributes for all eligible entities.
- Addressing the derived attributes
- Identifying all multivalued attributes
- Addressing the fan trap problem
- Normalizing the model
- Improved cardinality

References:

- [1] G. Alder, "draw.io," [Online]. Available: <https://app.diagrams.net/>.
- [2] NS, "Nova Scotia Province Parks," [Online]. Available: <https://parks.novascotia.ca/>.
- [3] P. Dybka, "Vertablo | Chen Notation," Vertablo, [Online]. Available: <https://www.vertabelo.com/blog/chen-erd-notation/>.
- [4] "ConceptDraw Solutions," [Online]. Available: <https://www.conceptdraw.com/How-To-Guide/erd-diagrams-software-tools-for-design-element-chen>.