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SEMESTER: FALL 2023 INSTRUCTOR: DR. LE GRUENWALD

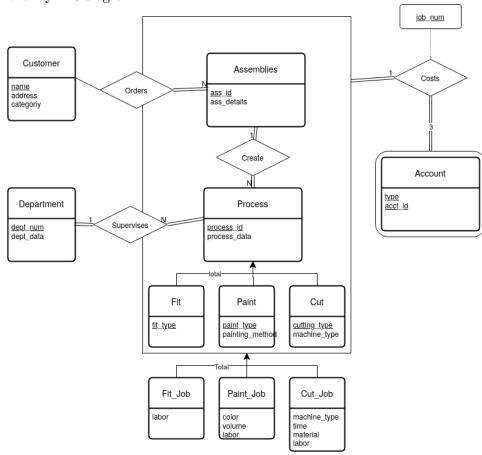
SCORE:

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1 ER Diagram

Here is my ER diagram



2 Relational Database Schema

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Here are my schema:
   Process_id,process_data)
   Assemblies(ass_id,ass_details)
   Create(process_id, ass_id)
   Customer(name, address, category)
   Orders(name,ass_id)
   Department(dept_num,dept_data)
   Supervises(dept_num,process_id)
   Fit(process_id, fit_type)
   Paint(process_id, paint_type, painting_method)
   Cut(process_id,cutting_type, machine_type)
   Account(type, <u>acct_id</u>)
   Job(process_id, <u>ass_id</u>, job_num)
   Account(type, <u>acct_id</u>)
   Costs(job_num,type, <u>acct_id</u>,process_id, <u>ass_id</u>)
   Fit_Job(process_id, ass_id, job_num, labor)
   Paint_Job(process_id, <u>ass_id</u>, job_num,color,volume, labor)
   Cut_Job(process_id, ass_id, job_num, machine_type, time, material, la-
bor)
```

3 Storage

Table Name	Query Number and Type	Search Key	Query Frequency	Selected File Organization	Justification
Customer	1 Insertion	name	30/Day	Heap on name	At the moment adding lots of data is easiest with a heap. I reserve the right to change this if we need to look for customers often
Department	2 Insertion	dept_num	infrequent	Sequential on dept_num	Since this data is added infrequently but referenced by other tables often, sequential insertion seems appropriate.