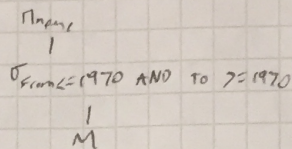


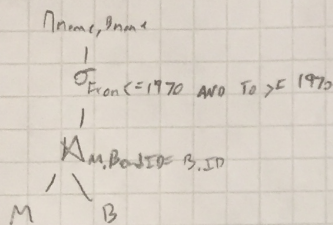
HW2 Michael Mardack

① $\Pi_{Name} (\sigma_{From \leq 1970 \text{ AND } To > 1970} M)$



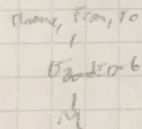
Name
 Roger Waters
 Robert Fripp
 Irena Schmidt
 Michael Karoli
 Jim Morrison
 Lou Reed
 David Allen
 Jon Anderson
 Bill Bruford

② $\Pi_{Name, Band} (\sigma_{From \leq 1970 \text{ AND } To > 1970} M) \bowtie \Pi_{Band} B$



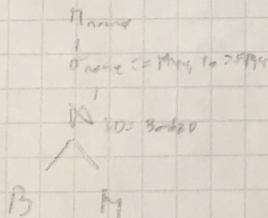
Name	Band Name
Roger Waters	Pink Floyd
Robert Fripp	King Crimson
Irena Schmidt	Can
Michael Karoli	Can
Jim Morrison	Doors
Lou Reed	Velvet Underground
David Allen	Gong
Jon Anderson	Yes
Bill Bruford	Yes

③ $\Pi_{Name, From, To} (\sigma_{Band \leq 6} M)$



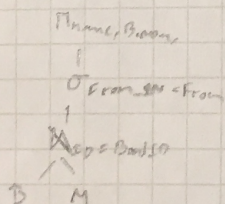
Name	From	To
David Allen	1969	1974
Peter Moerlen	1975	1978

④ $\Pi_{Name, From, To} (\sigma_{From \leq 1974, To > 1974} (B \bowtie B))$



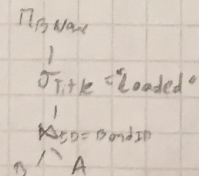
Name
 Robert Fripp

⑤ $\Pi_{Name, Band} (\sigma_{From = 1974} (B \bowtie B))$



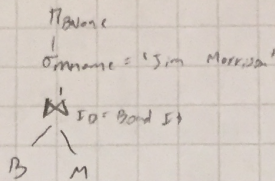
B. Name	M. Name
King Crimson	Robert Fripp
Can	Irena Schmidt
Can	Michael Karoli
Doors	Jim Morrison
Velvet Underground	Lou Reed
Gong	David Allen
Yes	Bill Bruford

⑥ $\Pi_{Name} (\sigma_{Title = "Loaded"} (B \bowtie B))$



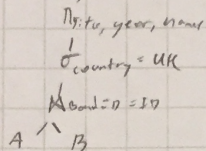
Name
 Velvet underground

② $\pi_{\text{genre}} (\sigma_{\text{genre} = 'Jim Morrison'} (B \bowtie_{ID=ID} B \bowtie_{ID=ID} M))$



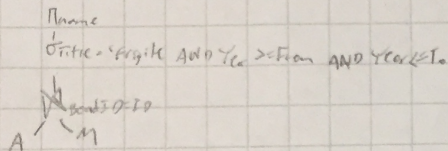
π_{genre}
Doors

③ $\pi_{\text{title, year, name}} (\sigma_{\text{country} = 'UK'} (A \bowtie_{\text{band ID} = ID} B))$



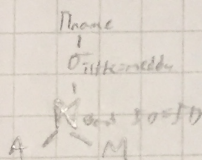
title	year	name
Middle	1970	Pink Floyd
Animals	1977	Pink Floyd
Red	1974	King Crimson
Fragile	1971	Yes
Close to the edge	1972	Yes

⑨ $\pi_{\text{name}} (\sigma_{\text{title} = 'Fragile' \text{ AND } \text{year} > \text{Fram} \text{ AND } \text{year} < 10} (A \bowtie_{\text{band ID} = ID} M))$



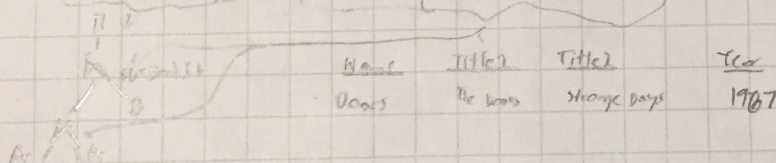
π_{name}
 Jon Anderson
 Bill Bruford

⑩ $\pi_{\text{name}} (\sigma_{\text{title} = \text{middle} \text{ AND } (\text{year} > 10 \text{ OR } \text{year} < \text{Fram})} (A \bowtie_{\text{band ID} = ID} M))$



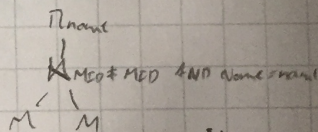
π_{name}
 Syd Barrett

⑪ $\pi_{\text{name, title2, title3, year}} (\sigma_{\text{title} = \text{middle} \text{ AND } (\text{year} > 10 \text{ OR } \text{year} < \text{Fram})} (A \bowtie_{\text{band ID} = ID} B \bowtie_{ID=ID} A))$



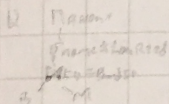
name	title2	title3	year
Doors	The Doors	Strange Days	1967

⑮ $\pi_{\text{name}} (M \bowtie_{\text{MED} \neq \text{MED}} \text{ AND } \text{name} = \text{name} \text{ M})$



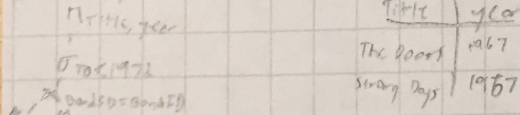
π_{name}
 Bill Bruford

⑫ $\pi_{\text{bandname}} (\sigma_{\text{bandname} = 'Pink Floyd'} (B \bowtie_{ID=ID} M))$



π_{bandname}
 Pink Floyd
 King Crimson
 Yes
 Doors
 Band
 Yes

⑬ $\pi_{\text{title, year}} (\sigma_{\text{year} < 1972} (A \bowtie_{\text{band ID} = ID} B \bowtie_{ID=ID} M))$



title	year
The Doors	1967
Strange Days	1967

⑭ $\pi_{\text{title, year}} (\sigma_{\text{title} = \text{King Crimson} \text{ AND } \text{year} < 1981} (B \bowtie_{ID=ID} B \bowtie_{ID=ID} (A \bowtie_{\text{band ID} = ID} M)))$

