

1.  $\Pi\{\text{title}\} (\sigma (\text{cname} = \text{"Evnet"} \text{ and location } = \text{'george st'}) (\text{Movie}$

$\bowtie \text{Movieshowing} \bowtie \text{Cinema} \bowtie (\sigma(\text{genre} = \text{'comeday'}) (\text{Genre of Film}))$

2.  $A \leftarrow \Pi\{\text{clD}\} (\sigma(\text{cname} = \text{"Event"} \text{ and location} = \text{"Chatswood"}) (\text{Cinema}))$

$B \leftarrow \Pi\{\text{clD}\} (\sigma(\text{cname} = \text{"Hoyts"} \text{ and location} = \text{"Chatswood"}) (\text{Cinema}))$

$C \leftarrow \Pi\{\text{title}, \text{releaseDate}\} (\text{Moiveshowing} \div (A \cup B))$

3.  $\text{allmovie} \leftarrow \Pi\{\text{mlD}\} (\sigma(\text{name} = \text{"James Wan"}) (\text{Director} \bowtie \text{Filming}))$

$\text{Aquanman} \leftarrow \Pi\{\text{mlD}\} (\sigma(\text{title} = \text{" Aquaman"}) (\text{allmovie} \bowtie \text{Moive}))$

$\text{otherMoive} \leftarrow \Pi\{\text{mlD}\} (\text{Moive} - \text{Aquanman})$

$\text{seeAuan} \leftarrow \Pi\{\text{name}\} (\text{Customer} \bowtie \text{WatchMovie} \bowtie \text{aquanman})$

$\text{seeOther} \leftarrow \Pi\{\text{name}\} (\text{Customer} \bowtie \text{WatchMovie} \bowtie \text{otherMoive})$

$\text{malePerson} \leftarrow \Pi\{\text{name}\} (\sigma(\text{gender} = \text{"male"}) (\text{Customer} \bowtie \text{WatchMovie}))$

seeAquan ))

$D \leftarrow \Pi\{\text{name}\}(\text{malePerson-seeOther})$

4.A  $\leftarrow \Pi\{\text{mID}\}(\sigma(\text{genre}=\text{"fantasy"}) (\text{Genre of Film})) \cap \Pi\{\text{mID}\}(\sigma(\text{genre}=\text{"violence"}) (\text{Genre of Film}))$

$\text{findDirector} \leftarrow \Pi\{\text{name}, \text{mID}\}(\text{filming} \bowtie_A \text{Director})$

$\text{allMoviedirecSee} \leftarrow \Pi\{\text{cusID}, \text{mID}, \text{name}\}(\text{Customer} \bowtie$

$\text{findDirector} \bowtie \text{WatchMoive})$

$C \leftarrow \Pi\{\text{name}\}(\text{allMoviedirecSee})$

5.  $\text{allmovie} \leftarrow \Pi\{\text{mID}\}(\sigma(\text{runningTime} > 120)(\text{Moive}))$

$B \leftarrow \Pi\{\text{cusID}\}(\sigma(\text{cname} \neq \text{"Hoyts"}) (\text{WatchMoive} \bowtie \text{cinema} \div \text{allmovie}))$

$C \leftarrow \Pi\{\text{name}\}(\sigma(\text{age} > 30 \text{ and } \text{age} < 50)(B \bowtie \text{Customer}))$