Ans_1 = $\pi_{\text{hotel\_name, hotel\_city}}$(HOTEL)

Ans_2 = $\sigma_{\text{room\_type='single' and room\_price<50}}$(ROOM)

Ans_3 = $\pi_{\text{hotel\_name}}(\sigma_{\text{hotel\_city='Melbourne'}}$(HOTEL))

PSuiteNo = $\pi_{\text{hotel\_no}}(\sigma_{\text{room\_type ='presidential suite'}}$(ROOM))

Ans_4 = $\pi_{\text{hotel\_name}}$(PSuiteNo $\bowtie \pi_{\text{hotel\_name, hotel\_no}}$ (HOTEL))