

# PA3

1.1 Composer  $\gamma$  AVG (MilliseC) (Tracks)

1.2  $\gamma$  COUNT(\*) AS NUMUNIQUE (Customers)

1.4 GenreID  $\gamma$   $\pi$  (AVG (MilliseC) (Tracks  $\bowtie$  Genres))  
Name

2.2  $R_1 = \text{Composer } \gamma \text{ AVG (ms)} \text{ AS AD (tracks)}$

$R = \sigma_{AD < 38,500} (R_1)$

2.5  $R_1 = \text{BillingCountry } \gamma \text{ SUM (total)} \sigma_{\text{Invoice Date Like \%2010\%}} (\text{invoices})$

$R = \sigma_{\text{COUNT(*)} > 5} (R_1)$