

Performer ( { PER-ID, PER-NAME, PER-LAST-NAME, PER-ARTIST-NAME, PER-MUSIC-TYPE,  
PER-MANAGER-EMAIL },  
{ PER-ID } )

Event ( { EVT-ID, EVT-NAME, EVT-START-DATE, EVT-END-DATE, EVT-LOCATION, EVT-SUP-ID },  
{ EVT-ID } )

Event[EVT-SUP-ID]  $\subseteq$  Event[EVT-ID]

Event[EVT-ID]  $\subseteq$  Event[EVT-SUP-ID]

dom(Event, EVT-SUP-ID)  $\subseteq$  dom(Event, EVT-ID)

Null(Event, EVT-SUP-ID) = T

Stage ( { STG-ID, STG-NAME, STG-CAPACITY, STG-LOCATION, EVT-ID },  
{ EVT-ID + STG-ID } )

Stage[EVT-ID]  $\subseteq$  Event[EVT-ID]

Performs ( { PRF-DATE, PRF-START-TIME, PRF-END-TIME, EVT-ID, STG-ID, PER-ID },  
{ EVT-ID + STG-ID + PER-ID } )

Performs[EVT-ID + STG-ID]  $\subseteq$  Stage[EVT-ID + STG-ID]

Performs[PER-ID]  $\subseteq$  Performer[PER-ID]

Performer[PER-ID]  $\subseteq$  Performs[PER-ID]

Attendee ( { ATD-ID, ATD-EMAIL, ATD-NAME, ATD-LASTNAME, ATD-PHONE-NUMBER },  
{ ATD-ID } )

TicketType ( { TTY-ID, TTY-TYPE, TTY-QUANTITY, EVT-ID },  
{ TTY-ID } )

TicketType[EVT-ID]  $\subseteq$  Event[EVT-ID]

Null(TicketType, EVT-ID) =  $\perp$

Ticket ( { TCK-ID, TCK-PRICE, TTY-ID },  
{ TCK-ID } )

Ticket[TTY-ID]  $\subseteq$  TicketType[TTY-ID]

Null(Ticket, TTY-ID) =  $\perp$

Purchase ( { PCH-ID, PCH-DATE, TCK-ID, ATD-ID, EVT-ID },  
{ PCH-ID + TCK-ID + ATD-ID } )

Purchase[TCK-ID]  $\subseteq$  Ticket[TCK-ID]

Ticket[TCK-ID]  $\subseteq$  Purchase[TCK-ID]

Purchase[ATD-ID]  $\subseteq$  Attendee[ATD-ID]

Purchase[EVT-ID]  $\subseteq$  Event[EVT-ID]

VIPArea ( { VIP-ID, VIP-NAME, VIP-CAPACITY },  
{ VIP-ID } )

Discount ( { DSC-ID, DSC-TYPE, DSC-PERCENTAGE, DSC-VALIDITY },  
{ DSC-ID } )

VIPTicket ( { TTY-ID, VIP-ID },  
{ TTY-ID } )

VIPTicket[TTY-ID]  $\subseteq$  TicketType[TTY-ID]

VIPTicket[VIP-ID]  $\subseteq$  VIPArea[VIP-ID]

Null(VIPTicket, VIP-ID) =  $\perp$

GAPlusTicket ( { TTY-ID, DSC-ID },  
{ TTY-ID } )

GAPlusTicket[TTY-ID]  $\subseteq$  TicketType[TTY-ID]

GAPlusTicket[DSC-ID]  $\subseteq$  Discount[DSC-ID]

Null(GAPlusTicket, DSC-ID) =  $\perp$

GAPlusTicket[TTY-ID]  $\cap$  VIPTicket[TTY-ID] =  $\emptyset$