

```
@startuml
class User {
    +UserID
    +Username
    +Password
    +Email
    +PaymentMethods
    +Age
    +BlockedStatus
    +Login()
    +AddPaymentMethod()
    +PurchaseTicket()
    +RequestRefund()
    +SearchEvents()
    +TransferTicket()
    +ViewNotifications()
}

```

```
class Event {
    +EventID
    +EventName
    +Date
    +Time
    +Venue
    +TicketTypes
    +Prices
    +AgeRestriction
    +CreateEvent()
    +UpdateEvent()
    +CancelEvent()
}

```

```
class Ticket {
    +TicketID
    +EventID
    +UserID
    +TicketType
    +SeatNumber
    +PurchaseDate
    +Validity
    +GenerateTicket()
    +DownloadTicket()
    +ValidateTicket()
}

```

```
class Payment {
    +PaymentID
    +UserID
    +Amount
    +PaymentMethod
    +TransactionDate
    +ValidatePayment()
}

```

```
+ProcessRefund()  
}
```

```
class EventOrganizer {  
    +EventsManaged  
    +PromoteEvent()  
    +ViewParticipants()  
    +BlockUser()  
}
```

```
class Notification {  
    +NotificationID  
    +UserID  
    +Message  
    +Date  
    +SendNotification()  
    +ViewNotification()  
}
```

```
class Review {  
    +ReviewID  
    +UserID  
    +EventID  
    +Rating  
    +Comment  
    +SubmitReview()  
    +ViewReviews()  
}
```

```
class Analytics {  
    +EventID  
    +NumberOfAttendees  
    +TicketSales  
    +UserDemographics  
    +GenerateReport()  
}
```

```
class Authentication {  
    +UserID  
    +AuthenticationStatus  
    +AuthenticateUser()  
}
```

```
class SeatSelection {  
    +EventID  
    +SeatMap  
    +AvailableSeats  
    +SelectSeat()  
    +UpdateSeatAvailability()  
}
```

```
class Admin {
```

```

+AdminID
+Username
+Password
+Email
+CreateUser()
+DeleteUser()
+BlockUser()
+UnblockUser()
+CreateEvent()
+UpdateEvent()
+DeleteEvent()
+ViewAnalytics()
+ManageSystemSettings()
}

```

```

User "1" - "0..*" Ticket : has >
User "1" - "0..*" Notification : receives >
User "1" - "0..*" Review : writes >
User "1" - "0..*" Payment : makes >
User "1" - "1" Authentication : requires >
User "0..1" -down-> "0..*" EventOrganizer
Admin "1" - "0..*" User : manages >
Admin "1" - "0..*" Event : manages >
Admin "1" - "0..*" Analytics : views >

```

```

Event "1" - "0..*" Ticket : includes >
Event "1" - "0..*" SeatSelection : offers >
Event "1" - "0..*" Analytics : has >
EventOrganizer "1" - "0..*" Event : creates >

```

```

Ticket "1" - "1" Payment : uses >
@enduml

```

