# HoopsLink: Custom Coaching & Gear Hub

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## User Views(1-6)

This user view is pivotal for maintaining and accessing comprehensive profiles of HoopsLink customers. It enables administrative users to view personal details, contact information, and addresses, providing a centralized hub for managing customer interactions. The interface is designed to ease updating records, ensuring that communications, marketing, and service delivery are always targeted and efficient.

## 1. Customer Profile Management

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**Customer Profile Management**

| customer ID | customer Name | customer Address | city | state | zip | email | phoneNumber |
|---|---|---|---|---|---|---|---|
| 1 | John Doe | 123 Maple St | Anytown | TX | 75001 | johndoe@email.com | 123-456-7890 |
| 2 | Jane Smith | 456 Oak St | Othertown | NY | 10001 | janesmith@email.com | 987-654-3210 |
| 3 | Alice Johnson | 789 Pine St | Hereville | CA | 90001 | alicej@email.com | 234-567-8901 |
| 4 | Bob Brown | 321 Elm St | Thattown | FL | 33001 | bobbrown@email.com | 345-678-9012 |
| 5 | Carol White | 654 Spruce St | Thistown | IL | 60001 | carolwhite@email.com | 456-789-0123 |
| 6 | David Green | 987 Cedar St | Wheretown | TX | 77001 | davidgreen@email.com | 567-890-1234 |

# 2. Coaching Session Scheduler

The coaching session scheduler view is an essential tool for coordinating and managing all basketball coaching sessions offered by HoopsLink. It integrates coaches' availability with customer bookings, streamlining the scheduling process. This view is instrumental in avoiding double bookings, handling rescheduling, and ensuring customers and coaches can prepare for upcoming sessions.

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**Coaching Session Scheduler**

| Session ID | Coach ID | Customer ID | Session Date | Session Time | Session Type | Session Fee |
|---|---|---|---|---|---|---|
| 201 | 101 | 1 | 2023-11-15 | 15:00 | Private | 100.00 |
| 202 | 102 | 2 | 2023-11-16 | 16:00 | Group | 50.00 |
| 203 | 103 | 3 | 2023-11-17 | 17:00 | Private | 100.00 |
| 204 | 104 | 4 | 2023-11-18 | 18:00 | Group | 50.00 |
| 205 | 105 | 5 | 2023-11-19 | 19:00 | Private | 100.00 |
| 206 | 106 | 6 | 2023-11-20 | 20:00 | Group | 50.00 |

# 3. Gear Ordering System

User View 3 encompasses the gear ordering system, a comprehensive platform where customers can place orders for basketball equipment. This view displays order details, including items, quantities, and prices, and tracks the status of each order from placement to delivery, ensuring customers have a transparent view of their transactions.

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**Gear Ordering System**

| Order ID | Customer ID | Order Date | Item Code | Item Name | Quantity | Item Price |
|----------|-------------|------------|-----------|-----------|----------|------------|
| 301 | 1 | 2023-11-21 | 401 | Basketball | 2 | 29.99 |
| 302 | **2** | 2023-11-22 | 402 | Sneakers | 1 | 79.99 |
| 303 | 3 | 2023-11-23 | 403 | Jersey | 3 | 45.99 |
| 304 | 4 | 2023-11-24 | 404 | Water Bottle | 1 | 9.99 |
| 305 | 5 | 2023-11-25 | 405 | Gym Bag | 2 | 34.99 |
| 306 | 6 | 2023-11-26 | 406 | Cap | 1 | 12.99 |

# 4. Payment Processing

The payment processing view offers a secure and concise summary of all transactions within HoopsLink. It provides administrators and customers with detailed records of payments, including dates, amounts, and methods, ensuring financial clarity and aiding in the swift resolution of any billing inquiries.

| | | | | |
|---|---|---|---|---|
| HoopsLink: Custom Coaching & Gear Hub | | | | |
| **Payment Processing** | | | | |
| **Payment ID** | **Order ID** | **Payment Date** | **Amount** | **Payment Method** |
| 501 | 301 | 2023-11-27 | $59.98 | Credit Card |
| 502 | 302 | 2023-11-28 | $79.99 | PayPal |
| 503 | 303 | 2023-11-29 | $137.97 | Debit Card |
| 504 | 304 | 2023-11-30 | $9.99 | Credit Card |
| 505 | 305 | 2023-12-01 | $69.98 | Apple Pay |
| 506 | 306 | 2023-12-02 | $12.99 | Google Pay |

# 5. Inventory Management

This user view is integral to the management of HoopsLink's gear and equipment inventory. It provides real-time insights into stock levels and supplier details, enabling effective inventory control and procurement planning. This view ensures that stock replenishment aligns with demand and that customer orders can be fulfilled without delay.

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**Inventory Management**

| Item Code | Item Name | Stock Quantity | Supplier ID | Supplier Name |
|-----------|-----------|----------------|-------------|---------------|
| 401 | Basketball | 10 | 501 | Supplier A |
| 402 | Sneakers | 15 | 502 | Supplier B |
| 403 | Jersey | 20 | 503 | Supplier C |
| 404 | Water Bottle | 30 | 504 | Supplier D |
| 405 | Gym Bag | 5 | 505 | Supplier E |
| 406 | Cap | 25 | 506 | Supplier F |

# 6. Performance Review Portal

The performance review portal is a crucial feedback mechanism within HoopsLink. It enables the assessment of coaches' performance through reviews and ratings, fostering a culture of excellence and improvement. Coaches can view their feedback, allowing them to celebrate their strengths and identify areas for professional development.

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**Performance Review Portal**

| Review ID | Coach ID | Review Date | Performance Score | Comments |
|---|---|---|---|---|
| 601 | 101 | 2023-11-23 | 90 | Excellent coaching techniques. |
| 602 | 102 | 2023-11-24 | 85 | Very engaging. |
| 603 | 103 | 2023-11-25 | 95 | Outstanding attention to detail. |
| 604 | 104 | 2023-11-26 | 80 | Good but needs more tactical knowledge. |
| 605 | 105 | 2023-11-27 | 75 | Friendly but late sessions. |
| 606 | 106 | 2023-11-28 | 88 | Great motivational skills. |

# Normalization Steps - <span style="background-color:#e06666">Primary Key</span> <span style="background-color:#6d9eeb">Foreign Key</span> <span style="background-color:#8e7cc3">Junction Table</span>

## User View 1 - Customer Profile Management

```
1NF
|
|    CustomerProfile(customerID, customerName, customerAddress, city, state, zip, email,
phoneNumber)
|
|    2NF - Remove Partial Dependencies
|
2NF
|    Customer(customerID, customerName, customerAddress, city, state, zip, email,
phoneNumber)
|
|    3NF - Remove Transitive Dependencies
|
3NF
|    Customer(customerID, customerName, customerAddress, city, state, zip, email,
phoneNumber)
```

## User View 2 - Coaching Session Scheduler

```
1NF
|
|  CoachingSession(sessionID, coachID, coachName, customerID, customerName, sessionDate,
sessionTime, sessionType, sessionFee)
|
|  2NF - Remove Partial Dependencies
|
2NF
|  Coach(coachID, coachName)
|  Session(sessionID, coachID, customerID, sessionDate, sessionTime, sessionType, sessionFee)
|  Customer(customerID, customerName)
|
|  3NF  - Remove Transitive Dependencies
|
3NF
|  Coach(coachID, coachName)
|  Session(sessionID, coachID, customerID, sessionDate, sessionTime, sessionType, sessionFee)
|  Customer(customerID, customerName)
```

## User View 3 - Gear Ordering System

1NF
|
|   GearOrder(orderID, customerID, orderDate, itemCode, itemName, quantity, itemPrice)
|
|   2NF  - Remove Partial Dependencies
|
2NF
|   Order(orderID, customerID, orderDate)
|   Item(itemCode, itemName, itemPrice)
|   OrderItem(orderID, itemCode, quantity)
|
|   3NF  - Remove Transitive Dependencies
|
3NF
|   Order(orderID, customerID, orderDate)
|   Item(itemCode, itemName, itemPrice)
|   OrderItem(orderID, itemCode, quantity)


## User View 4 - Payment Processing

1NF
|
|   Payment(paymentID, orderID, paymentDate, amount, paymentMethod)
|
|   2NF - No Partial Dependencies to remove
|
2NF
|   Payment(paymentID, orderID, paymentDate, amount, paymentMethod)
|
|   3NF  - No Transitive Dependencies to remove
|
3NF
|   Payment(paymentID, orderID, paymentDate, amount, paymentMethod)

## User View 5 - Inventory Management

1NF
|
|   Inventory(itemCode, itemName, stockQuantity, supplierID, supplierName)
|
|   2NF - Remove Partial Dependencies
|
2NF
|   Item(itemCode, itemName)
|   Stock(itemCode, stockQuantity)
|   Supplier(supplierID, supplierName)
|
|   3NF - Remove Transitive Dependencies
|
3NF
|   Item(itemCode, itemName)
|   Stock(itemCode, stockQuantity)
|   Supplier(supplierID, supplierName)


## User View 6 - Payment Report

1NF
|
|   PerformanceReview(reviewID, coachID, coachName, reviewDate, performanceScore, comments)
|
|   2NF - Remove Partial Dependencies
|
2NF
|   Coach(coachID, coachName)
|   Review(reviewID, coachID, reviewDate, performanceScore, comments)
|
|   3NF  - Remove Transitive Dependencies
|
3NF
|   Coach(coachID, coachName)
|   Review(reviewID, coachID, reviewDate, performanceScore, comments)

# Attribute Domain Matrix

| Attribute | Data Type |
| --- | --- |
| customerID | INT |
| customerName | VARCHAR(100) |
| customerAddress | VARCHAR(255) |
| city | VARCHAR(50) |
| state | VARCHAR(50) |
| zip | VARCHAR(10) |
| email | VARCHAR(100) |
| phoneNumber | VARCHAR(15) |
| orderID | INT |
| orderDate | DATE |
| itemCode | INT |
| itemName | VARCHAR(100) |
| itemPrice | DECIMAL(10,2) |
| sessionID | INT |
| coachID | INT |
| coachName | VARCHAR(100) |
| sessionDate | DATE |

| | |
|---|---|
| sessionTime | TIME |
| sessionType | VARCHAR(50) |
| sessionFee | DECIMAL(10,2) |
| quantity | INT |
| paymentID | INT |
| paymentDate | DATE |
| amount | DECIMAL(10,2) |
| paymentMethod | VARCHAR(50) |
| stockQuantity | INT |
| supplierID | INT |
| supplierName | VARCHAR(100) |
| reviewID | INT |
| reviewDate | DATE |
| performanceScore | INT |
| comments | TEXT |

# Attribute-User View Matrix

| Attribute | User View 1 | User View 2 | User View 3 | User View 4 | User View 5 | User View 6 |
|---|---|---|---|---|---|---|
| customerID | X | X | X | | | X |
| customerName | X | X | | | | X |
| customerAddress | X | | | | | |
| city | X | | | | | |
| state | X | | | | | |
| zip | X | | | | | |
| email | X | | | | | |
| phoneNumber | X | | | | | |
| orderID | X | | X | | | |
| orderDate | X | | X | | | |
| itemCode | X | | X | | X | |
| itemName | X | | X | | X | |
| itemPrice | X | | X | | X | |
| sessionID | | X | | | | |
| coachID | | X | | | | X |
| coachName | | X | | | | X |
| sessionDate | | X | | | | |
| sessionTime | | X | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| sessionType | | X | | | | |
| sessionFee | | X | | | | |
| quantity | | | X | | | |
| paymentID | | | | X | | |
| paymentDate | | | | X | | |
| amount | | | | X | | |
| paymentMethod | | | | X | | |
| stockQuantity | | | | | X | |
| supplierID | | | | | X | |
| supplierName | | | | | X | |
| reviewID | | | | | | X |
| reviewDate | | | | | | X |
| performanceScore | | | | | | X |
| comments | | | | | | X |