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AUTH BILL PRO

Billing System for Authorizations

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**User Guide**

**Invoice Calculation:**

The system calculates the total invoice amount for a participant and authorization by following these steps:

1. **Identify Activities:** It identifies all activities billed for the chosen participant and the specific authorization associated with them.
2. **Sum Billed Hours:** It sums up the billed hours for all these identified activities.
3. **Apply Rate:** It multiplies the total billed hours by the billable hourly rate defined in the chosen authorization.

This calculation provides the total invoice amount for the participant based on the activities billed against that specific authorization.

**Overall Workflow:**

1. **Add Participant:** Enter participant details.
2. **Create Authorization:** During authorization creation, the user will enter the total number of billable hours for that specific authorization.
   * **Manual Calculation:** The user will manually enter the same value for "Remaining Billable Hours" as entered for "Auth Billable Hours." This ensures both fields initially have the same value.

**Example:**

* User enters 40 for "Auth Billable Hours."
* The user then manually enters 40 for "Remaining Billable Hours."

1. **Create Activity:** Select participant, authorization, and enter billed hours for the activity.
2. **Invoice Calculation:** The system sums billed hours from activities for the chosen participant and authorization, multiplies by the authorization's rate, and displays the total invoice amount.
   * The remaining billable hours in the authorization are automatically updated by subtracting the activity's billed hours.

**Benefits:**

* **Accurate Invoicing:** Ensures accurate invoice amounts based on participant, authorization, and billed hours.
* **Automatic Updates:** Remaining billable hours automatically reflect activity usage, simplifying tracking.
* **Streamlined Workflow:** Clear process for adding participants, authorizations, activities, and generating invoices.

**Future Improvement:**

* Once the auth remaining billable hours , automatic initialization feature is developed, it can replace the manual step, eliminating the drawbacks and streamlining the process.
* Add filter to view activities
* Add feature , Time-bound Authorizations.

**Description: For Time-bound Authorizations**

This feature leverages the currently unused Auth Begin Date and End Date fields in the authorization form to create time-bound authorizations. This means an authorization would only be valid for billing within a specific date range.

**Benefits:**

* **Improved Accuracy:** Ensures billing only occurs for activities performed within the authorized timeframe. This is crucial for projects with specific billing periods or contracts with defined start and end dates.
* **Enhanced Control:** Provides more granular control over participant billing by limiting it to specific authorization periods.
* **Reduced Errors:** Prevents accidental billing for activities outside the authorized period.

**Implementation:**

1. **Authorization Form Update:** Modify the authorization form to make Auth Begin Date and End Date mandatory fields.
2. **Activity Validation:** Implement validation logic to ensure the activity date falls within the authorized date range defined in the chosen authorization.
   * If the activity date falls outside the authorized range, the system displays an error message preventing the user from saving the activity.
3. **Reporting Enhancements:** Update reports to include the Auth Begin Date and End Date for each authorization, providing a clear overview of authorized billing periods.

**Additional Considerations:**

* **Renewal System:** A system for automatically generating new authorizations with updated dates upon reaching the end date of the current one, ensuring uninterrupted billing for ongoing projects.
* **User Notifications:** Implement notifications to alert users when an authorization is nearing its end date, prompting them to create a new one if needed.

**Overall Impact:**

This feature would significantly enhance Auth Bill Pro's functionality by providing time-bound authorizations. This improves billing accuracy, control, and reduces errors, making it a valuable addition to the system.

**Understanding Category and Link Forms in Auth Bill Pro**

**Category Form:**

The category form serves as a central location for defining the different types of activities you perform. This helps with:

* **Organized Billing:** By categorizing activities, you can easily track and analyze billing trends for specific types of work (e.g., consulting hours vs. training sessions).
* **Clear Communication:** Having defined categories ensures everyone involved (participants, billers) understands the nature of each activity.
* **Simplified Activity Creation:** When creating activities, users can easily select the appropriate category from a dropdown list, saving time and avoiding confusion.

**Here's what you might include in a category form:**

* **Category Name:** A clear and concise description of the activity type (e.g., Development Hours, Meeting Attendance, Training Session).
* **Optional Description:** A more detailed explanation of the category, if needed.

**Link Form :**

The link form provides an additional layer of functionality by allowing users to associate relevant links with participants. This can be helpful for:

* **Improved Efficiency:** Users can easily access important resources related to a specific participant, such as a shared project document or a participant's online portfolio.
* **Enhanced Communication:** Centralized links can streamline communication and collaboration by ensuring everyone has access to the same resources.
* **Participant (Dropdown):** Select the participant to associate the link.
* **(future feature)Link Title:** A clear and descriptive name for the link (e.g., Project Management Tool, Job Search Spreadsheet).
* **Link URL:** The actual web address of the linked resource

**Auth Bill Pro Dashboard Breakdown**

The Auth Bill Pro dashboard seems to provide a comprehensive overview of your invoicing activities. Here's a breakdown of the key elements you mentioned:

**Forms:**

* **Participants:** This form allows you to add and manage participant information, likely including details like name, contact information, and registration date.
* **Authorizations:** Here, you define participant-specific billable rates and associate them with categories. You can also track the remaining billable hours for each authorization.
* **Activities:** This form is where you create activity records with details like participant, authorization, category, billed hours, etc. This data forms the basis for invoice generation.
* **Links (Optional):** This functionality allows you to associate relevant links with participants, providing easy access to important resources.
* **Category:** Here, you define different types of activities you perform, helping with organized billing and clear communication.
* **Case Notes:** This form might allow you to add notes or comments related to specific participants, authorizations, or activities for future reference.
* **Generate Invoice:** This form, as discussed earlier, lets you filter for a participant, authorization, and service date range to generate a new invoice with details and a unique number.
* **View Invoices:** This section provides a list of previously generated invoices, showing details and their current status (pending, paid, void). Here, you can update the status as needed.
* **Invoice Report:** This report offers a high-level view of participant statuses with associated authorizations. It likely displays a running total based on the invoice status (pending, paid, void). This helps you track overall billing progress.
* **Resources: (Optional)** Personal link, Title , comments for a specific resource, such as MINIT
* **Personal Notes | Reminders (Optional):** Help organize thoughts and to follow up with Auth Bill Pro Details

**Overall Functionality:**

The dashboard acts as a central hub for managing all aspects of your invoicing process. Here's how it likely works:

1. **Participant Setup:** You add participants and their details.
2. **Authorization Creation:** Define billable rates and categories for each participant.
3. **Activity Recording:** Create activity records with relevant details for billing.
4. **Invoice Generation:** Filter and generate invoices based on specific criteria.
5. **Invoice Management:** View, update the status, and manage previously generated invoices.
6. **Reporting:** Gain insights into overall billing progress through the invoice report.

**Table > participants**

-------------

|  | **Field** | **Type** | **Null** | **Key** | **Default** | **Extra** |
| --- | --- | --- | --- | --- | --- | --- |
|  | participant\_id | int | NO | PRI |  | auto\_increment |
|  | email | varchar(255) | NO | UNI |  |  |
|  | first\_name | varchar(255) | YES |  |  |  |
|  | last\_name | varchar(255) | YES |  |  |  |
|  | phone | varchar(50) | YES |  |  |  |
|  | registration | date | YES |  |  |  |

**Form(s)**

Participants

frmDeleteParticipant

**Querie(s)**

DeleteActivitiesRecords

DeleteAuthRecords

DeleteLinksRecords

DeleteParticipant

**Participants** to **Auth**: One-to-Many (One participant can have multiple authorizations)

* Participants.participant\_id -> Auth.participant\_id

**Participants to Activities:** One-to-Many (One participant can have multiple activities)

* Participants.participant\_id -> Activities.participant\_id

**Participants to Links:** One-to-Many (One participant can have multiple links)

* Participants.participant\_id -> Links.participant\_id

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| **Table > auth**  **------------------** |  |  |  |  |
|  |  |  |  |  |
| **Field Type Null Key Default Extra**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | auth\_number | varchar(255) | NO | PRI |  | | auth\_begin\_date | date | NO |  |  | | auth\_end\_date | date | NO |  |  | | auth\_rate | decimal(10,2) | NO |  |  | | auth\_billable\_hours | int | NO |  |  | | auth\_remaining\_billable\_hours | int | NO |  |  | | participant\_id | int | YES | MUL |  | | participant\_last\_name | varchar(255) | YES |  |  | |  |  |  |  |
| **Form(s)**  Auth  **Querie(s)**  qryServiceDates2  qryGetAuthNumber  qryTotalActBillableHoursSimple |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **Auth** to **Activities**: One-to-Many (One authorization can be associated with multiple activities)   * Auth.auth\_number -> Activities.auth\_number   **Auth** to **Invoices**: One-to-Many (One authorization can have multiple invoices)   * Auth.auth\_number -> Invoices.auth\_number |  |  |  |  |

**Table > activities**

**------------------**

**Field Type Null Key Default Extra**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| actBillable\_hours | decimal(10,2) | NO |  |  |  |
| actCase\_notes | text | NO |  |  |  |
| activity\_date | date | NO |  |  |  |
| activity\_id | int | NO | PRI |  | auto\_increment |
| actType\_name | varchar(255) | NO |  |  |  |
| auth\_number | varchar(255) | YES | MUL |  |  |
| participant\_id | int | YES | MUL |  |  |

**Querie(s)**

qryActivityDetails

qryServiceDates

**Form(s)**

Activities

frmFilterActivites

**Activities** to **Activity\_Types**: Many-to-One (Many activities can be of one type)

Activities.actType\_name -> Activity\_Types.type\_name

**Table > invoices**

**------------------**

**Querie(s)**

qryInvoiceCalculation

qryInvoiceReport

**Form(s)**

frmViewInvoices

frmGenerateInvoices

**Field Type Null Key Default Extra**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | invoice\_id | int | NO | PRI |  | auto\_increment | | invoice\_number | varchar(50) | NO | UNI |  |  | | auth\_number | varchar(50) | YES | MUL |  |  | | invoice\_date | date | NO |  |  |  | | total\_amount | decimal(10,2) | NO |  |  |  | | status | varchar(50) | NO |  |  |  | | created\_at | timestamp | YES |  | CURRENT\_TIMESTAMP | DEFAULT\_GENERATED | | updated\_at | timestamp | YES |  | CURRENT\_TIMESTAMP | DEFAULT\_GENERATED on update CURRENT\_TIMESTAMP | | participant\_name | text | YES |  |  |  | |  |  |  |  |  |
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**Invoices** to **Invoice\_Details**: One-to-Many (One invoice can have multiple invoice details)

* Invoices.invoice\_id -> Invoice\_Details.invoice\_id

**Table > invoice\_details**

**------------------**

**AWS Cost Explorer**

**Querie(s)**

**Form(s)**

frmViewInvoice\_Details

**Field Type Null Key Default Extra**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Invoice\_detail\_id | int | NO | PRI |  | auto\_increment | | invoice\_id | int | YES | MUL |  |  | | actType\_name | varchar(255) | YES |  |  |  | | actBillable\_hours | decimal(10,2) | YES |  |  |  | | activity\_date | date | YES |  |  |  | |  |  |  |  |  |
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**Total Estimated Monthly Cost:**

* Instance Cost: $14.40
* Storage Cost: $2.30
* **Total:** $16.70 per month

**Cost Analysis for MySQL RDS on AWS**

To conduct a cost analysis, we need to consider the different factors that contribute to the cost of running a MySQL RDS instance on AWS. The primary components include:

1. **Instance Class and Pricing:**
   * **Instance Type:** db.t3.micro
   * **vCPUs:** 2
   * **RAM:** 1 GiB
   * **Pricing:** $0.020 per hour
2. **Storage Costs:**
   * **Allocated Storage:** 20 GiB
   * **Pricing:** $0.115 per GiB-month
3. **Backup Storage:**
   * **Included Backup Storage:** Up to the size of the database is free
   * **Additional Backup Storage:** $0.095 per GiB-month (if exceeds the database size)
4. **Data Transfer Costs:**
   * **Data Transfer Out to Internet:** $0.09 per GiB (first 1 GB per month is free)