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Archival Notice

This presentation is preserved **solely for historical and archival purposes**.

- The content reflects the **state of knowledge, tools, technologies, and industry practices** available at the time the lecture was originally delivered.

- Examples, recommendations, and technical references are **intentionally time-bound** and may no longer represent current best practices.

- This material is retained to document **teaching methodology, professional experience, and industry context** during the stated period.

Presentation Format Explanation

This archived version intentionally displays **both slide content and speaker notes** to preserve full instructional context.

- **Slide Presentation Area (~80%)**
  Displays the original visual content used during the lecture.

- **Speaker Notes Area (~20%)**
  Displays the instructor's verbal explanations, teaching intent, and contextual clarifications in a smaller font.

Speaker notes are included **for documentation, academic review, and historical reference**, and were not intended to be visible to the original live audience.

Intended Use of This Archive

This material is intended for:

- Academic and professional portfolio review

- Teaching and curriculum documentation

- Historical reference of IT education and industry practices

- Analysis of pedagogy and professional development over time

This material is **not intended** to serve as:

- Current technical guidance

- Up-to-date industry instruction

- A live presentation without revision or contextual update

PHP vs .NET

Comparison and When to USE It

Seminar for Fresh IT Professionals
September 27, 2008
ace I.T. Learning Solutions, Quezon City, MM

Abegail Torrendon (thenocturnaldevgypsy.com)
I.T. Mentor (Guest)

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- I'm Abby, BSCS Graduate, planning to continue MIT when time permits

- I.T. Industry:
  - Project Manager & Application Developer
  - GIS & Facility Monitoring Systems
  - PH & US Government Projects

- I.T. Academe:
  - Instructor II
  - Programming I & II, Web Development, Multimedia

Author's Statement
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Speaker's Notes

Introducing myself to the attendees:
- BS Computer Science graduate from STI College Southwoods, with plans to pursue an MIT

- Project Manager and Application Developer at Pacific Data Resource Asia, specializing in GIS and government facility monitoring systems

- IT Instructor II at AMA University Makati, teaching programming, web development, and multimedia

- Invited speaker for web development seminars by the ace I.T. Learning Solutions

PHP vs .NET
Comparison and When to USE It

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Seminar Objective

- Compare PHP and .NET realistically
- Align tech choice with PH market demand
- Understand cost, deployment, and maintenance trade-offs
- Prepare for simple hands-on implementation
- **Please feel free to ask questions! It's a 4-HR session XD**

Speaker's Notes

The objective is not to convince you that one platform is superior. Instead, this seminar aims to help you understand when PHP makes sense, when .NET makes sense, and why many companies in the Philippines continue to use both.

By the end of the session, you should be able to justify your technology choice to a client, a manager, or a technical lead.

The goal is to help professionals choose the right technology based on context, not ideology.

Goal: help you decide what to use, when, and why; not which language is "better."

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Philippine I.T. Landscape ATM

- Strong outsourcing-driven market / influence
- SMEs + agencies dominate web projects
- Cost-sensitive clients
- Mixed enterprise and startup environments

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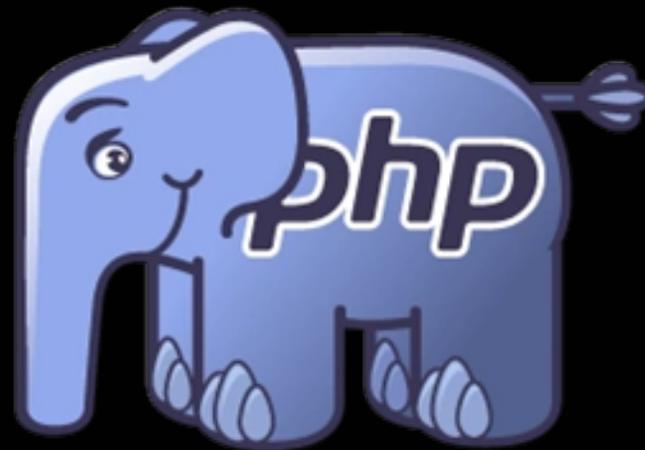
PHP Standing in the Philippines

- Widely used in SMEs and agencies
- Common in shared hosting environments
- Strong open-source ecosystem
- Easy entry point for developers

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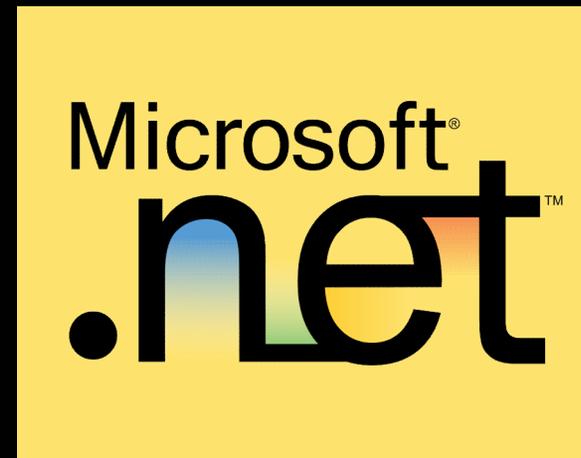
.NET Standing in the Philippines

- Common in corporate and enterprise systems
- Preferred in Microsoft-based environments
- Strong tooling and IDE support
- Higher infrastructure and licensing cost

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.net™

Speaker's Notes

.NET, on the other hand, is most commonly found in corporate and enterprise environments.

Companies that already use Microsoft technologies-such as Windows Server, Active Directory, and SQL Server naturally adopt .NET for web and internal systems.

While .NET offers strong tooling and structure, it usually requires higher upfront investment in licenses and infrastructure, which limits its adoption among smaller businesses.

.NET is strong in corporate environments with Microsoft infrastructure.

.NET dominates where Windows Server, Active Directory, and SQL Server already exist.

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Hiring Demand Snapshot

- PHP
  - more job listings/higher volume, smaller projects
  - common in freelance/agency work
- .NET
  - fewer listings/roles, higher/deeper specialization
  - common in in-house roles

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Typical PHP Projects in PH

- Company websites
- CMS-based/driven platforms
- Small eCommerce sites
- SME internal tools

Speaker's Notes

Most PHP projects in the Philippines involve public-facing websites. These include company websites, CMS-based platforms, small eCommerce sites, and internal tools for SMEs.

These projects typically prioritize speed of delivery and affordability over complex architecture. Many are maintained by small teams or even solo developers.

This affects career strategy: PHP offers volume and flexibility, while .NET offers stability and specialization.

PHP projects often prioritize speed and cost efficiency. These projects value speed and cost efficiency.

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Typical .NET Projects in PH

- HR and Payroll systems
- Accounting and ERP
- Internal enterprise tools/platform
- BPO and Corporate platforms

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PHP Strengths & Weaknesses

- Fast development
- Low-cost hosting
- Large developer community
- Easy deployment

- Code quality depends on discipline
- Easy to create unstructured systems
- Performance issues if poorly designed
- Security requires developer awareness

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.NET Strengths & Weaknesses

- Strongly typed languages
- Excellent IDE tool (Visual Studio)
- Better enforcement of structure/ architecture
- Enterprise-ready ecosystem

- Licensing and infrastructure cost
- Windows server dependency
- Higher/steeper learning curve
- Less flexible hosting

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PHP Frameworks & Platforms in Demand

- CodeIgniter
- CakePHP
- Zend Framework
- WordPress
- Joomla
- Drupal

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PHP vs .NET

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.NET Frameworks & Stack

- ASP.NET Web Forms
- .NET Framework 2.0 / 3.5
- ADO.NET
- SQL Server
- IIS

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Microsoft® **SQL Server** 2008

IIS7
internet information services
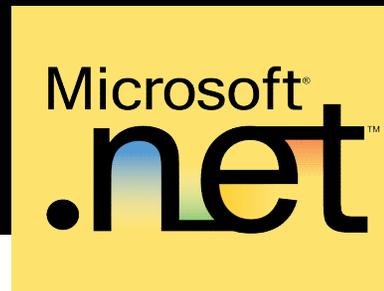
Speaker's Notes

For most production systems in the Philippines, the dominant .NET stack is:
- ASP.NET Web Forms
- .NET Framework 2.0/3.5
- ADO.NET for data access
- SQL Server as the primary database
- IIS as the web server

ASP.NET Web Forms is the mainstream and stable approach used in:
- Corporate environments
- BPOs
- Internal enterprise systems

While newer architectural approaches are being explored internally by some companies, they are not yet publicly adopted or widely used in PH production projects at this time.

For this part, the focus is:
- What attendees will realistically encounter in jobs
- What is safe, supported, and deployable in real PH environments
- What aligns with existing corporate infrastructure
This keeps the discussion practical and professionally responsible.

This stack reflects stable, production-ready .NET systems ATM. This is the stable, production-ready .NET stack commonly used in PH enterprises.

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Development Speed Comparison

- PHP: fast startup
- .NET: slower start, cleaner long-term
- Speed vs Structure trade-off

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Hosting & Deployment

- PHP: shared/Linux hosting common
- .NET: Windows Server + IIS
- Deployment cost differs significantly

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Scalability Reality

- Both PHP and .NET can scale
- Architecture matters more than language
- Budget limits scalability options

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Security Reality

- PHP security depends on coding practices/developer responsibility
- .NET provides safer and stronger defaults
- Both require proper validation/practice
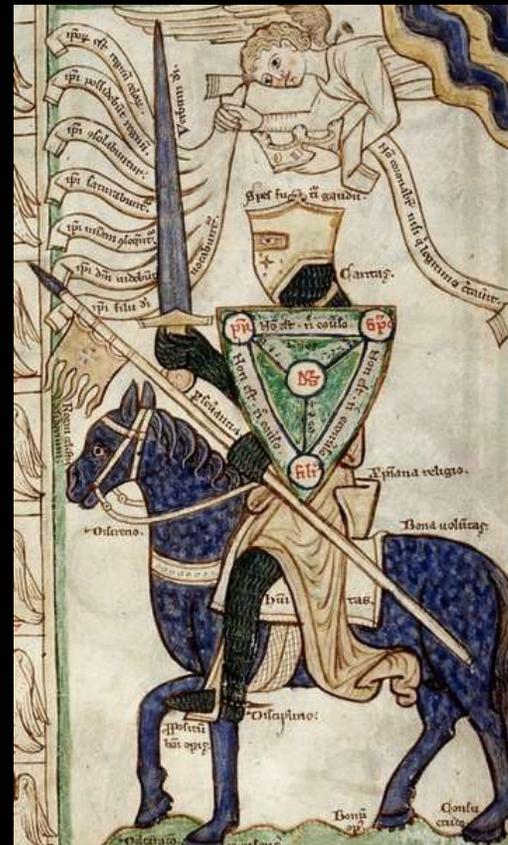
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Team Skill Availability

- PHP developers more common
- .NET developers more specialized
- Hiring speed vs skill depth

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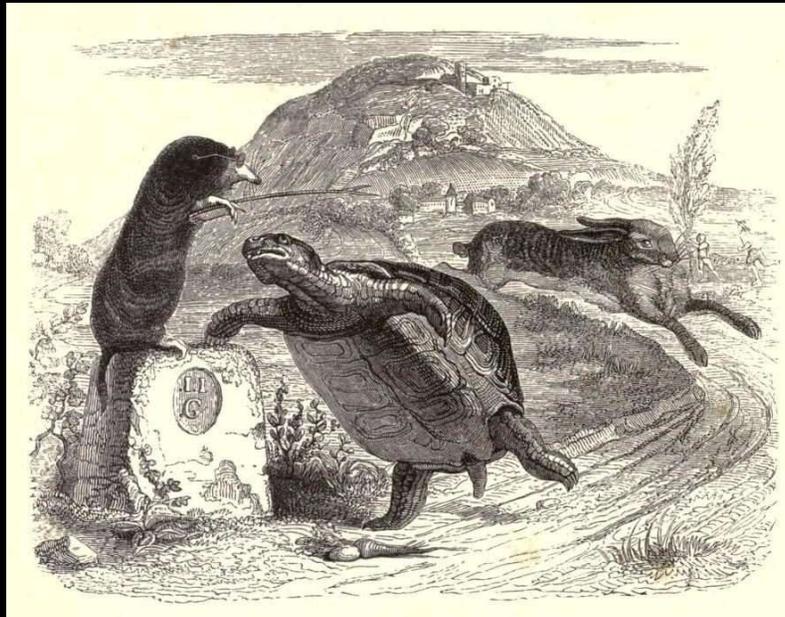
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When PHP Is the Right Choice

- SMEs and agencies
- Tight budgets
- Fast turnaround
- CMS-driven solutions

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When .NET Is the Right Choice

- Enterprise environments /systems
- Existing Microsoft infrastructure/Stack
- Long-term internal systems /maintenance
- Regulated industries

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Speaker's Notes

.NET is best suited for enterprise environments with existing Microsoft infrastructure.

It excels in long-term internal systems, regulated industries, and projects where structure, security, and maintainability outweigh cost concerns.

.NET fits enterprise and regulated systems. This aligns with banks, BPOs, and large orgs.

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Any questions?

Speaker's Notes

Ask attendees for any questions.

Ask the following:
- What are the typical projects for PHP?
- What's the weaknesses of PHP?
- What's the weaknesses of .NET?
- What are the 3 most used CMS in PHP right now in the market?
- What are the servers you can use for PHP and .NET deployments /hosting?
- When is .NET the right choice for your project?

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Hands-On Session/ Lab Exercise

- PHP environment setup
- .NET environment setup
- Simple CRUD demo for both, participants try both stacks
- Mentor support
- Open Q&A

Speaker's Notes

The second half of the seminar focuses on practical implementation.

Participants will set up environments for both PHP and .NET and build simple CRUD applications to experience firsthand the differences in setup, tooling, and development workflow.

Second half focuses on hands-on comparison. Now we move from theory to practice.

Participants are encouraged to try both environments and ask questions. The purpose is comparison, not competition. Experiencing both stacks helps clarify personal preferences and practical considerations.

Hands-on comparison is key to learning. Encourage comparison, not debate. It's also an open Q&A.

Remind attendees to read/check their handouts that was distributed earlier.

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PHP Environment Setup & CRUD Demo

- XAMPP (Apache + PHP + MySQL)
- Local testing environment
- Mirrors shared hosting setups

- Simple CRUD
- Insert, list, update, delete
- Emphasis on speed
- Common SME pattern

Speaker's Notes

We use XAMPP to demonstrate a typical PHP development environment.

This setup closely mirrors how many Philippine SMEs and agencies work, using Apache, PHP, and MySQL on a local machine before deploying to shared hosting.

XAMPP mirrors real PH SME PHP setups. XAMPP reflects real PH SME setups.

The PHP CRUD demo emphasizes simplicity and speed. The goal is not to build a perfect application but to show how quickly a working system can be assembled using common PHP tools.

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.NET Environment Setup & CRUD Demo

- .NET Framework installation
- IIS configuration
- Visual Studio IDE Familiarity

- Web Forms approach
- SQL Server backend
- Data binding
- Structured workflow

Speaker's Notes

For .NET, we configure the .NET Framework with IIS and Visual Studio. This setup reflects real corporate environments where applications are hosted internally or on Windows-based servers.

This setup reflects corporate environments. This mirrors corporate environments.

The .NET CRUD demo highlights the advantages of strong tooling, data binding, and structured code. Participants can see how Visual Studio and ASP.NET support rapid development while maintaining structure.

Demonstrates structure and tooling benefits. Show tooling advantage.

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Group Reflection

- Which setup felt easier (ease of setup)?
- Which felt cleaner (code clarity)?
- Which fits your job (job relevance)?

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PH Industry Summary, Career Strategy & Takeaways

- PHP: agencies, SMEs, freelancers; .NET: enterprises, internal systems = Both coexist

- Learn/master one deeply; Understand the other = Stay adaptable

- Context matters; Budget matters; Infrastructure matters; Skills must evolve

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There is no "best" language:
only the right tool for the job (not personal preference).

Thanks for attending!
Any questions?

Speaker's Notes

There is no universally best language or platform. The best professionals are those who choose the right tool for the job and can explain that choice clearly and confidently. There is no single best technology. End strong and professional.

Ask attendees for any questions.

PHP vs .NET: Comparison and When to USE It - Notes and Lab Guidelines
September 27, 2008 | ace I.T. Learning Solutions

This handout summarizes the key discussion points from the seminar and helps working IT professionals make informed technology decisions aligned with Philippine market realities

1. **Philippine IT Industry Context**

   The Philippine IT industry is shaped by outsourcing, SMEs, cost-sensitive projects, and mixed enterprise environments.

2. **PHP in the Philippine Market**

   PHP is widely used in SMEs, agencies, and freelance work due to affordable hosting, flexibility, and open-source tools.

3. **.NET in the Philippine Market**

   .NET is commonly used in enterprise environments where Microsoft infrastructure is already in place.

4. **Hiring Demand Snapshot**

   PHP offers volume and flexibility, while .NET offers specialization and long-term stability.

5. **Frameworks and Platforms in Demand**

   PHP: CodeIgniter, CakePHP, Zend Framework, WordPress, Joomla.

   .NET: ASP.NET Web Forms, .NET Framework 2.0/3.5, ADO.NET, SQL Server, IIS.

6. **Hosting and Deployment Considerations**

   PHP supports low-cost shared hosting, while .NET typically requires Windows Server and IIS

7. **Security and Scalability**

   Security and scalability depend on architecture and coding practices rather than language choice.

8. **When to Choose PHP**

   Best for SMEs, CMS-driven projects, and fast delivery with limited budgets.

9. **When to Choose .NET**

   Best for enterprise systems, long-term maintenance, and Microsoft-based environments.

10. **Key Takeaway**

    There is no single best language; context, budget, and infrastructure determine the right choice.

11. **Final Note**

    The most valuable skill is knowing when and why to use the right tool.

NOTES for LECTURE:

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Lab Activity #1: PHP CRUD (XAMPP + MySQL)

Goal: Build a simple Create-Read-Update-Delete (CRUD) web program for a products list using PHP and MySQL on a local machine.

Requirements: Windows XP or Vista, XAMPP bundle (Apache + PHP + MySQL + phpMyAdmin), Text editor (Notepad++, PSPad, etc.) or Web IDE (Dreamweaver. MS FrontPage), Internet Explorer or Firefox.

Exercise 1: Environment Setup

- ☐ Install XAMPP to C:\xampp (default)
- ☐ Start Apache and MySQL in XAMPP Control Panel
- ☐ Verify Apache: http://localhost/
- ☐ Verify phpMyAdmin: http://localhost/phpmyadmin/

Exercise 2: Database (phpMyAdmin)

- ☐ Create database **seminar_shop** then run:

```
CREATE TABLE products (
    id INT NOT NULL AUTO_INCREMENT,
    name VARCHAR(120) NOT NULL,
    price DECIMAL(10,2) NOT NULL DEFAULT 0.00,
    qty INT NOT NULL DEFAULT 0,
    created_at DATETIME NOT NULL,
    PRIMARY KEY (id)
);
```

Exercise 3: Files (C:\xampp\htdocs\phpcrud)

- ☐ db.php (database connection)
- ☐ index.php (READ/list)
- ☐ create.php (CREATE)
- ☐ edit.php (UPDATE)
- ☐ delete.php (DELETE)

Exercise 4: Code Samples

- ☐ db.php (database connection)

```php
<?php
// Training note: this uses mysql_* for simplicity.
// In production, prefer parameterized queries
(PDO/mysqli).
$host = "localhost";
$user = "root";
$pass = "";
$db = "seminar_shop";
$conn = mysql_connect($host, $user, $pass) or die("DB
connect failed");
mysql_select_db($db, $conn) or die("DB select failed");
mysql_query("SET NAMES 'utf8'", $conn);
?>
```

- ☐ index.php (READ/list)

```php
<?php include "db.php"; ?>
```

```php
<h2>Products</h2>
<p><a href="create.php">Add New</a></p>
<table border="1" cellpadding="6">
    <tr><th>ID</th><th>Name</th><th>Price</th><th>Qty</th><th>Actions</th></tr>
<?php
$res = mysql_query("SELECT id,name,price,qty FROM
products ORDER BY id DESC");
while($row = mysql_fetch_assoc($res)){
    echo "<tr>";
    echo "<td>".$row["id"]."</td>";
    echo "<td>".$row["name"]."</td>";
    echo "<td>".$row["price"]."</td>";
    echo "<td>".$row["qty"]."</td>";
    echo "<td>
        <a href='edit.php?id=".$row["id"]."'>Edit</a> |
        <a
        href='delete.php?id=".$row["id"]."'>Delete</a>
    </td>";
    echo "</tr>";
}
?>
</table>
```

- ☐ create.php (CREATE)

```php
<?php include "db.php"; ?>
<?php
if(isset($_POST["name"])){
    $name = mysql_real_escape_string($_POST["name"]);
    $price = floatval($_POST["price"]);
    $qty = intval($_POST["qty"]);
    $now = date("Y-m-d H:i:s");
    mysql_query("INSERT INTO
    products(name,price,qty,created_at)
    VALUES('$name',$price,$qty,'$now')");
    header("Location: index.php"); exit;
}
?>
<h2>Add Product</h2>
<form method="post">
    Name: <input name="name" /><br/>
    Price: <input name="price" /><br/>
    Qty: <input name="qty" /><br/>
    <button type="submit">Save</button>
</form>
```

- ☐ edit.php (UPDATE)

```php
<?php include "db.php"; ?>
<?php
$id = intval($_GET["id"]);
if(isset($_POST["name"])){
    $name = mysql_real_escape_string($_POST["name"]);
    $price = floatval($_POST["price"]);
    $qty = intval($_POST["qty"]);
    mysql_query("UPDATE products SET name='$name',
    price=$price, qty=$qty WHERE id=$id");
    header("Location: index.php"); exit;
}
$res = mysql_query("SELECT * FROM products WHERE
id=$id");
$row = mysql_fetch_assoc($res);
?>
<h2>Edit Product</h2>
<form method="post">
    Name: <input name="name" value="<?php echo
    $row['name']; ?>" /><br/>
    Price: <input name="price" value="<?php echo
    $row['price']; ?>" /><br/>
    Qty: <input name="qty" value="<?php echo
    $row['qty']; ?>" /><br/>
    <button type="submit">Update</button>
```

```
</form>
```

☐ delete.php (DELETE)

```php
<?php include "db.php"; ?>
<?php
$id = intval($_GET["id"]);
mysql_query("DELETE FROM products WHERE id=$id");
header("Location: index.php"); exit;
?>
```

Exercise 5: Test Run

☐ Open: http://localhost/phpcrud/index.php
☐ Add 2-3 products, edit one, delete one.
☐ If you see DB errors: confirm MySQL is running and the database/table exist.

PH Project Notes

- PHP is common in SMEs and agencies due to affordable shared hosting.
- For real projects, enforce input validation and parameterized queries; add login before exposing CRUD to users.
- Keep deployment simple: consistent folder structure, config separation, and backups.

NOTES & REFLECTION for PHP LAB ACTIVITY:

Lab Activity #1: .NET CRUD (ASP.NET + IIS + SQL Server)

Goal: Build a simple CRUD web app for a Products list using ASP.NET (Visual Studio 2008) and SQL Server.

Requirements: Windows XP or Vista .NET Framework 3.5, IIS installed (IIS 5.1 on XP / IIS 7 on Vista / IIS 6 on Windows Server 2003), Visual Studio 2008 or Visual Web Developer 2008 Express, SQL Server 2005/2008 or SQL Server Express (SQLEXPRESS), Internet Explorer or Firefox.

Exercise 1: IIS Setup Checklist

☐ Enable IIS via Windows Components (XP) or Features (Vista).
☐ Test: http://localhost/ loads the default IIS page.
☐ If ASP.NET pages do not run, register ASP.NET with IIS (trainer will demo).

Exercise 2: Database and Table (SQL Server)

☐ Create database **SeminarShop** then run:

```
CREATE TABLE dbo.Products (
    Id INT IDENTITY(1,1) NOT NULL PRIMARY KEY,
    Name NVARCHAR(120) NOT NULL,
    Price DECIMAL(10,2) NOT NULL DEFAULT 0.00,
    Qty INT NOT NULL DEFAULT 0,
    CreatedAt DATETIME NOT NULL DEFAULT GETDATE()
);
```

Exercise 3: Project Setup (ASP.NET Web Forms - fast for lab)

☐ Visual Studio 2008 -> New Web Site -> ASP.NET Web Site.
☐ Language: C# or VB.NET.
☐ Create pages: Default.aspx (list), Create.aspx (add).
☐ Add connection string in web.config.

Exercise 4: web.config Connection String (example)

```
<configuration>
  <connectionStrings>
    <add name="SeminarShop"
      connectionString="Data
      Source=localhost\SQLEXPRESS;Initial
      Catalog=SeminarShop;Integrated
      Security=providerName="System.Data.SqlClient" />
  </connectionStrings>
</configuration>
```

Exercise 5: READ: List Products (Default.aspx - C# inline)

```
<%@ Page Language="C#" %>
<%@ Import Namespace="System.Data" %>
<%@ Import Namespace="System.Data.SqlClient" %>

<script runat="server">
```

```
protected void Page_Load(object sender, EventArgs e) {
  if(!IsPostBack) BindGrid();
}
void BindGrid(){
  using(var cn=new
SqlConnection(System.Configuration.ConfigurationManager.
ConnectionStrings["SeminarShop"].
    cn.Open();
    var da=new SqlDataAdapter("SELECT Id,Name,Price,Qty
FROM dbo.Products ORDER BY Id DESC", cn);
    var dt=new DataTable();
    da.Fill(dt);
    GridView1.DataSource=dt;
    GridView1.DataBind();
  }
}
</script>

<h2>Products</h2>
<p><a href="Create.aspx">Add New</a></p>
<asp:GridView ID="GridView1" runat="server"
AutoGenerateColumns="true" />
```

Exercise 6: CREATE: Add Product (Create.aspx - simplified)

```
<%@ Page Language="C#" %>
<%@ Import Namespace="System.Data.SqlClient" %>

<script runat="server">
protected void BtnSave_Click(object sender, EventArgs
e){
  using(var cn=new
SqlConnection(System.Configuration.ConfigurationManager.
ConnectionStrings["SeminarShop"].
    cn.Open();
    var cmd=new SqlCommand("INSERT INTO
dbo.Products(Name,Price,Qty) VALUES(@n,@p,@q)", cn);
    cmd.Parameters.AddWithValue("@n", TxtName.Text);
    cmd.Parameters.AddWithValue("@p",
Decimal.Parse(TxtPrice.Text));
    cmd.Parameters.AddWithValue("@q",
Int32.Parse(TxtQty.Text));
    cmd.ExecuteNonQuery();
  }
  Response.Redirect("Default.aspx");
}
</script>

<h2>Add Product</h2>
Name: <asp:TextBox ID="TxtName" runat="server" /><br/>
Price: <asp:TextBox ID="TxtPrice" runat="server" /><br/>
Qty: <asp:TextBox ID="TxtQty" runat="server" /><br/>
<asp:Button ID="BtnSave" runat="server" Text="Save"
OnClick="BtnSave_Click" />
```

Exercise 7: UPDATE & DELETE (pattern for lab)

☐ Use QueryString Id to load a row into TextBoxes.
☐ UPDATE with parameters: UPDATE dbo.Products SET ... WHERE Id=@id.
☐ DELETE with parameters: DELETE FROM dbo.Products WHERE Id=@id.

```
// UPDATE (parameterized)
UPDATE dbo.Products SET Name=@n, Price=@p, Qty=@q WHERE
Id=@id;

// DELETE (parameterized)
DELETE FROM dbo.Products WHERE Id=@id;
```

Exercise 8: Test Run

- ☐ Run in Visual Studio first (built-in dev server).
- ☐ Confirm add/list works with SQL Server.
- ☐ Optional: publish to IIS and re-test via http://localhost/YourApp/

PH Project Notes

- .NET is common in corporate environments with Windows Server + IIS + SQL Server.
- Licensing and infrastructure planning are part of your project proposal.
- Use parameterized queries and validate inputs even for internal systems.

NOTES & REFLECTION for .NET LAB ACTIVITY: