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Historical Teaching & Professional Material Archive

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- Examples, recommendations, and technical references are **intentionally time-bound** and may no longer represent current best practices.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Speaker notes are included **for documentation, academic review, and historical reference**, and were not intended to be visible to the original live audience.

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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- Historical reference of IT education and industry practices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

Author's Statement

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Historical Course Material - PHP vs .NET: Comparison and When to USE It | September 27, 2008, ace I.T. Learning Solutions

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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Speaker's Notes

This seminar is designed for working IT professionals who already have some exposure to web designing.

I am not here to reintroduce basic concepts, but to examine PHP and .NET.

The focus is on practical decision-making: what technologies are being hired for, what types of projects they are used in currently, and how cost, infrastructure, and long-term maintenance affect technology choice.

PHP vs .NET

Comparison and When to USE It



- 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

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

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PHP vs .NET

Comparison and When to USE It



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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PHP vs .NET

Comparison and When to USE It



Philippine I.T. Landscape ATM

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

Speaker's Notes

Philippine IT industry is heavily influenced by outsourcing and offshoring.

Many projects come from foreign clients, especially from the US, Australia, and Singapore.

Locally, SMEs and digital agencies dominate web development work.

Cost sensitivity is a major factor, and infrastructure decisions are often constrained by what clients are willing to pay for hosting, licensing, and long-term support.

The PH IT market is driven by outsourcing, SMEs, and cost considerations.

Most PH web work is driven by foreign clients (US, AU, SG) and local SMEs - not Silicon Valley startups.

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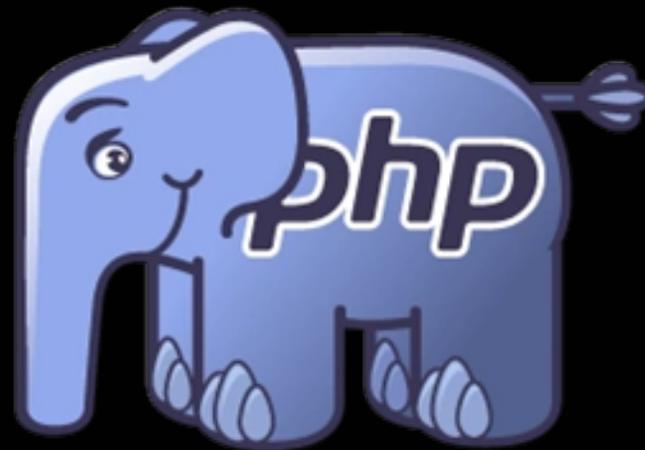
PHP vs .NET

Comparison and When to USE It



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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Speaker's Notes

PHP has a very strong presence in the Philippine market. It is widely used by small to medium enterprises, web agencies, and freelancers.

One major reason for this is affordability: PHP works well with low-cost shared hosting, usually on Linux servers.

The open-source ecosystem also allows developers and companies to avoid licensing fees, which is attractive to cost-conscious clients.

PHP is popular due to affordability and ease of deployment in SMEs.

PHP is everywhere because it's affordable, flexible, and deployable almost anywhere.

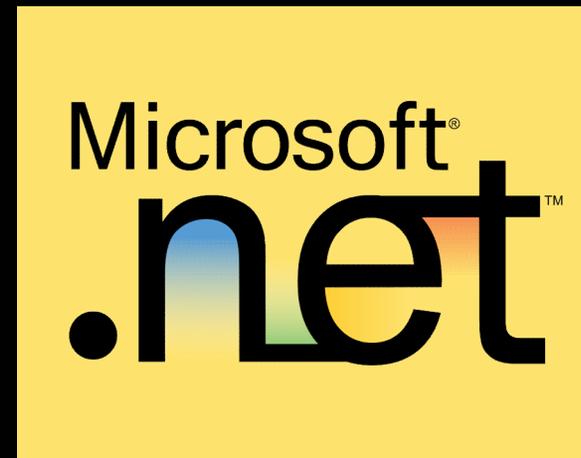
PHP vs .NET

Comparison and When to USE It



.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



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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PHP vs .NET

Comparison and When to USE It



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

Speaker's Notes

Based on job listings from Philippine job portals and overseas demand patterns, PHP roles appear more frequently but are often project-based or smaller in scope.

.NET roles are fewer but usually require deeper specialization and are tied to long-term employment in corporate environments.

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

Hiring demand reflects volume vs specialization trade-offs.

This is based on PH job portals (JobStreet, JobsDB) and overseas demand patterns. (Alt-Tab to show RL job posting)

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PHP vs .NET

Comparison and When to USE It



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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PHP vs .NET

Comparison and When to USE It



Typical .NET Projects in PH

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

Speaker's Notes

.NET projects are usually internal systems rather than public websites.

Common examples include HR systems, payroll applications, accounting platforms, and enterprise platforms.

These systems often need to integrate with existing corporate infrastructure and require higher reliability, access control, and long-term maintainability.

.NET projects prioritize structure and long-term maintenance.

These projects prioritize structure, security, and long-term maintenance.

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PHP vs .NET

Comparison and When to USE It



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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Speaker's Notes

PHP's biggest strength is its ability to get projects running quickly.

Development cycles are short, hosting is inexpensive, and there is a massive pool of developers and online resources.

This makes PHP ideal for agencies handling multiple clients and for startups that need to launch quickly with limited budgets.

PHP enables rapid delivery and flexibility. PHP's strength is time-to-market, especially for client-facing projects.

The main weakness of PHP is not the language itself but how it is often used.

PHP is easy to start with, it is also easy to write poorly structured code. Without discipline, projects can become hard to maintain and insecure. In professional environments, frameworks and coding standards are essential to mitigate these issues.

PHP problems usually come from lack of discipline. Most PHP problems are people problems, not language problems.

PHP vs .NET

Comparison and When to USE It



.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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Speaker's Notes

.NET excels in structured development. Strong typing, mature IDE support, and well-defined project structures help teams maintain large codebases.

Visual Studio significantly improves developer productivity, especially in team environments. These strengths make .NET well-suited for enterprise applications where long-term maintenance is critical.

.NET excels in team-based, structured development. .NET shines in team-based, long-lived projects.

The primary drawback of .NET in the Philippine context is cost. Licensing for Windows Server and SQL Server, as well as the need for more powerful hardware, increases project expenses. Additionally, .NET environments are less flexible when it comes to hosting, as they are typically tied to Windows-based servers.

.NET cost is a major limiting factor for SMEs. Cost is the main barrier for SMEs in the PH.

PHP vs .NET

Comparison and When to USE It



PHP Frameworks & Platforms in Demand

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



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Speaker's Notes

PHP demand in the Philippines is driven not only by framework-based development, but also by CMS-based solutions.

CodeIgniter and CakePHP are popular for:

- Lightweight frameworks
- Faster development
- MVC-style structure without heavy configuration

Zend Framework is more common in:

- Larger projects
- Teams that prefer strict architecture
- Enterprise-style PHP applications

WordPress, Joomla and Drupal are extremely important:

- Many PH projects are CMS-driven
- Agencies and freelancers use them heavily
- SMEs often request "WordPress sites" rather than custom systems

Job-market perspective:

- Knowing WordPress or Joomla significantly increases employability
- Many PHP jobs in PH involve customization, theming, and plugin work. not pure framework builds
- This reflects real-world demand, not just ideal architecture.

Frameworks and CMS dominate real PHP demand in PH. In the PH market, CMS-driven work dominates PHP demand. WordPress and Joomla skills often matter more than framework purity.

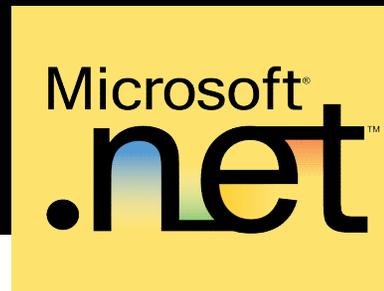
PHP vs .NET

Comparison and When to USE It



.NET Frameworks & Stack

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



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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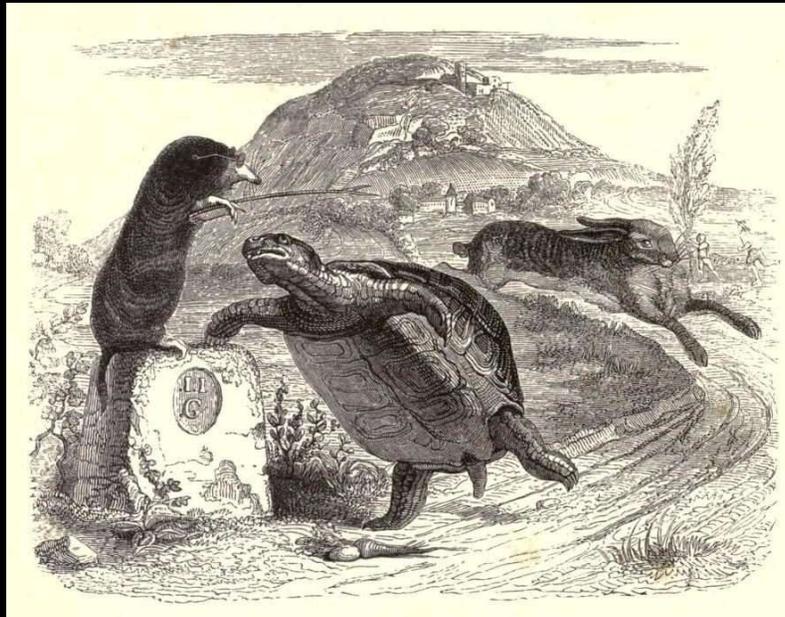
PHP vs .NET

Comparison and When to USE It



Development Speed Comparison

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



Speaker's Notes

PHP generally allows faster startup and prototyping, especially for small teams.

.NET projects often take longer to set up initially due to tooling and configuration, but they tend to be cleaner and more maintainable over time.

Choosing between them often comes down to whether speed or structure is the higher priority.

Clients often choose speed or structure based on budget. Client budget and timeline often decide this.

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PHP vs .NET

Comparison and When to USE It



Hosting & Deployment

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



Speaker's Notes

PHP applications can be deployed on inexpensive shared hosting or VPS environments, usually on Linux servers.

.NET applications typically require Windows Server and IIS, which increases hosting costs.

In many cases, hosting constraints alone determine which technology is feasible for a project.

Hosting constraints often decide technology choice. Infrastructure often dictates language choice.

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PHP vs .NET

Comparison and When to USE It



Scalability Reality

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



Speaker's Notes

Both PHP and .NET can scale if designed properly. Scalability depends more on architecture, database design, and infrastructure planning than on the programming language itself.

Budget limitations often restrict how far a system can scale, regardless of technology choice.

Scalability depends more on design than language. Scalability is not automatic; it's designed.

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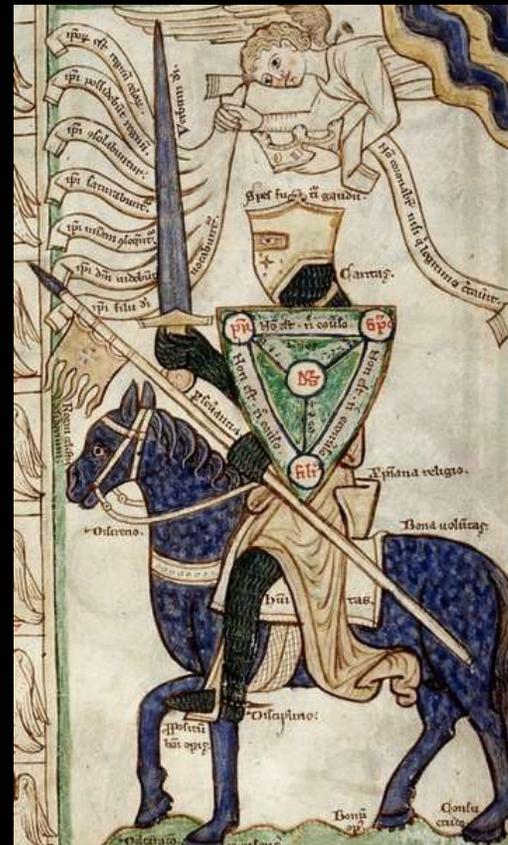
PHP vs .NET

Comparison and When to USE It



Security Reality

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



Speaker's Notes

Security is a concern for both platforms.

PHP requires developers to be proactive about input validation and secure coding practices.

.NET provides stronger defaults, but this does not eliminate the need for careful design.

Security is an ongoing process, not a feature that comes for free.

Security requires process and discipline on both platforms. Security is a process, not a checkbox.

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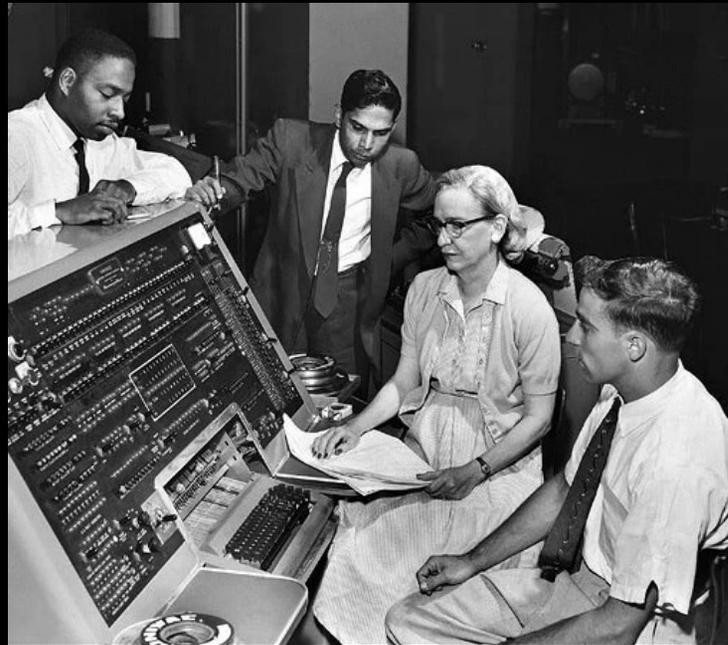
PHP vs .NET

Comparison and When to USE It



Team Skill Availability

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



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Speaker's Notes

PHP developers are more readily available in the Philippine market, making it easier to build or replace teams.

.NET developers are fewer but often have deeper specialization. This affects hiring timelines and project continuity, especially for long-term systems.

Availability of developers affects project timelines. Important for project planning and timelines.

PHP vs .NET

Comparison and When to USE It



When PHP Is the Right Choice

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



Speaker's Notes

PHP is ideal for SMEs, agencies, and startups that need fast results on limited budgets. It is especially suitable for CMS-driven websites, small eCommerce platforms, and short-to-medium-term projects where speed and flexibility are key.

PHP fits SMEs and fast-moving projects. This covers a large portion of PH web projects.

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PHP vs .NET

Comparison and When to USE It



When .NET Is the Right Choice

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



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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PHP vs .NET

Comparison and When to USE It



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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PHP vs .NET

Comparison and When to USE It



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



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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.

PHP vs .NET

Comparison and When to USE It



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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PHP vs .NET

Comparison and When to USE It



.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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PHP vs .NET

Comparison and When to USE It



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PHP vs .NET

Comparison and When to USE It



Group Reflection

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

Speaker's Notes

This discussion allows participants to reflect on ease of setup, clarity of code, and alignment with their current work.

These reflections often reveal which technology fits their professional context better.

Reflection helps align tech choice with job reality. This reflection is critical.

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PHP vs .NET

Comparison and When to USE It



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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Speaker's Notes

PHP and .NET coexist in the Philippine market. PHP dominates agency and SME work, while .NET dominates enterprise systems.

Understanding this coexistence is essential for career planning. Both platforms are valid in PH market. There is no single winner.

Professionals should aim to master at least one platform while understanding the other. Flexibility and adaptability are more valuable than loyalty to a single technology.

Flexibility ensures career longevity. Market flexibility = career longevity.

Technology choices should be based on context, budget, infrastructure, and long-term goals. The ability to evaluate these factors is a key professional skill.

Decision-making skills matter most. Reinforce decision-based thinking.

PHP vs .NET

Comparison and When to USE It



**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.

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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

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

1. Philippine IT Industry Context

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

10. Key Takeaway

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

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.

11. Final Note

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

3. .NET in the Philippine Market

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

NOTES for LECTURE:

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

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PHP vs .NET: Comparison and When to USE It - Notes and Lab Guidelines

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

- index.php (READ/list)

```
<?php include "db.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>
</tr><tr><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 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 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>
```


PHP vs .NET: Comparison and When to USE It - Notes and Lab Guidelines

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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;
```

