

高中資訊及通訊科技修訂課程詮釋講座

Revised Senior Secondary Information and Communication Technology (ICT) Curriculum

Elective B - Web Application Development

Promoting student-centered project-based learning by
open-source portable web server

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Content

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 - Different Tools for Editing PHP
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Student project based learning on web application development



Old curriculum

C.	Multimedia Production and Web Site Development	75	
	<i>a. Multimedia Production</i>		25
	<i>b. Web Site Development</i>		50

New curriculum

The Elective Part	(Choose any two only)	76	
A.	Databases	38	
	<i>a. Relational Databases Concepts</i>		6
	<i>b. SQL</i>		18
	<i>c. Database Design Methodology</i>		14
B.	Web Application Development	38	
	<i>a. Network Services and Implementation</i>		14
	<i>b. Web Programming and Applications</i>		24

Differences in student project based learning on web development

Old curriculum

Content

- Focus on Client Side, multimedia element
- Design of webpage

Skills needed

- HTML

Website Application

- One way
- Dreamweaver
- Wix

New Curriculum

Content

- Client and server interaction
- Programming

Skill needed

- HTML
- CSS
- Javascript
- PHP

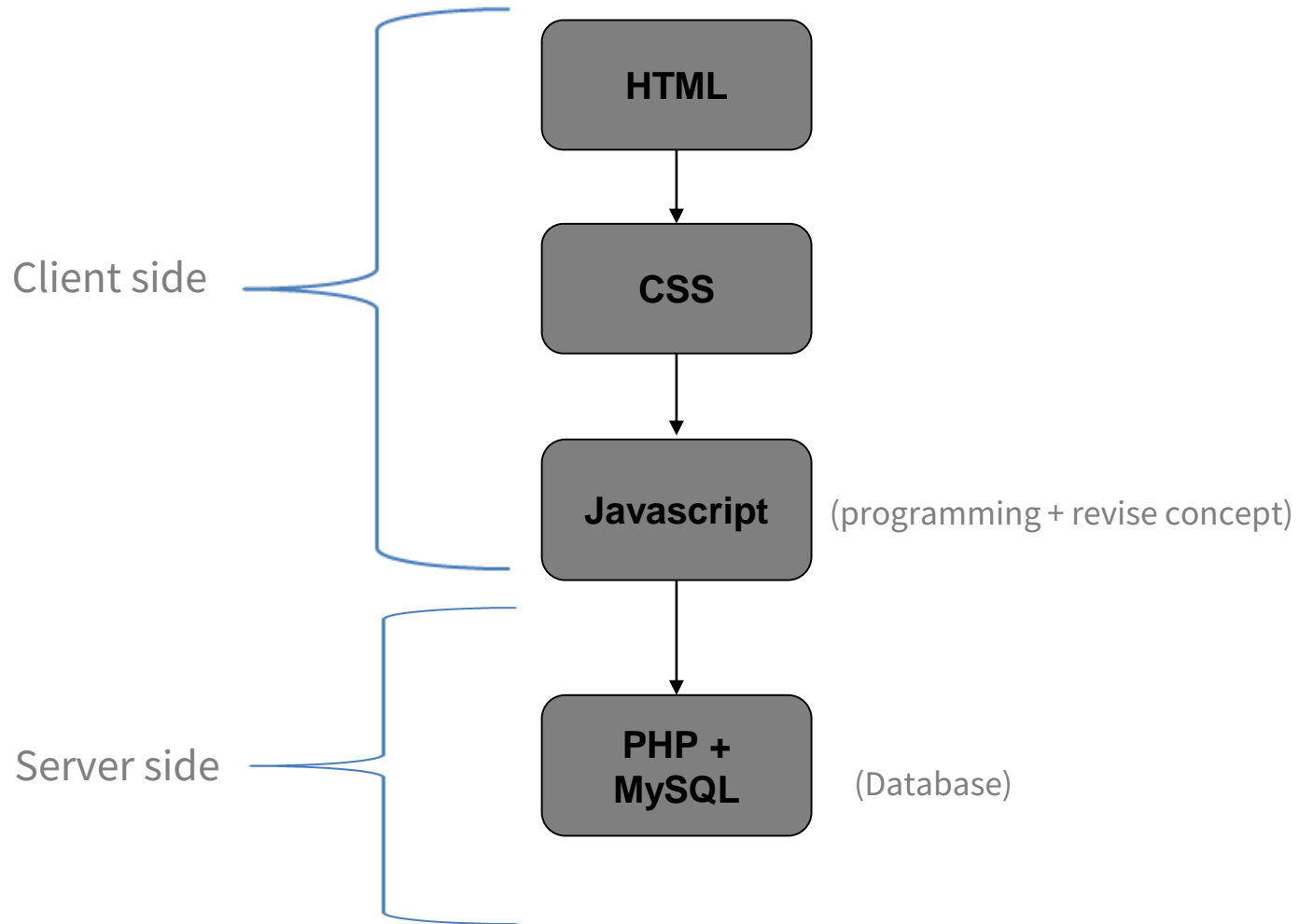
Website Application

- Two-way interactions
- Other tools

Programming Languages Used in Public Examination for Elective B

HKDSE Year	2024 or before	2025	2026	2027	2028 and onward
programming languages used	n/a	Javascript PHP	Javascript PHP	Javascript PHP	Javascript PHP

Sequence of teaching different language in web development



Prerequisite of knowledge on web development

- Core A. Information Processing
 - d. Data Manipulation and Analysis (Database ,SQL)
- Core C. Internet and its Applications
 - a. Networking and Internet Basics
 - b. Internet Services and Applications
 - c. Elementary Web Authoring (HTML)
- Core D. Computational Thinking and Programming

Different student centered projects

- Shopping cart system
- Online ordering system
- Personal weight management system
- Homework checklist for a class

Sequence of teaching

Core A,C,D



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graph TD; A[Core A,C,D] --> B[Elective B];
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Elective B

+ Elective A

/

+ Elective D

Introduction of open-source software to assist teaching and learning



Different Tools for Editing PHP

Editing Tools	Website	Free of charge
Notepad++	https://notepad-plus-plus.org/	YES
Visual Studio Code	https://code.visualstudio.com/	YES
NetBeans	https://netbeans.apache.org/	YES

Execution environment執行環境

傳統安裝方式

Traditional Installation

- Php + apache + mySQL
- Apache HTTP server
<https://httpd.apache.org/>
- PHP Module
<https://www.php.net/>
- MySQL
<https://www.mysql.com/>

WAMP 安裝方式

WAMP installation

- WAMP = Short form of window + apache + mySQL + PHP --- package software
 1. Laravel
 2. AppServ
 3. XAMPP
 4. WampServer