Course Outline	
COMP6144 Web Programming (2/1)	**Study Program** Computer Science
Effective Date 01 September 2018	**Revision** 2

1. Course Description

Web Programming course gives a guidance how the way to design and develop a Static and dynamic website. This subject explains the concept of web programming with PHP and using laravel framework. Laravel is a web application framework with expressive, elegant syntax. Laravel is accessible, yet powerful, providing tools needed for large, robust applications. This subject guides student to create dynamic web applications and this subject is an embedded-entrepreneurship Business Project II subject. It also explains the concept of entrepreneurship and business related to Computer Science field.

2. Graduate Competency

Each course in the study program contributes to the graduate competencies that are divided into employability and entrepreneurial skills and study program specific outcomes, in which students need to have demonstrated by the time they complete their course.

BINUS University employability and entrepreneurial skills consist of planning and organizing, problem solving and decision making, self management, team work, communication, and initiative and enterprise.

Employability and Entrepreneurial Skills

Aspect	Key Behaviour

Study Program Specific Outcomes

Study Program Specific Outcomes

3. Topics

- Introduction to Laravel and Database Configuration
- View and Controller Implementation
- Model Implementation
- Data Manipulation and Validation
- Laravel Authentication and Authorization
- Project Collection
- Introduction to Web Programming and Dynamic Web Content
- Customer Profiles
- Using Composer Packages and Routing
- Building Views and Adding Style
- The Next 10 Customers?
- Paging and Searching
- Quantifying Value Proposition
- Authentication,Validation and Security
- Where is Your Positions?
- Testing and Debugging Application
- Designing Business Model of the Business
- Adding Advanced Features to Application
- Review Material

4. Learning Outcomes

On successful completion of this course, student will be able to:

- LO 1: Construct construct the complete business plan
- LO 2: Describe concept of web programming
- LO 3: Choose a proper web programming technic to build web based application
- LO 4: Build a web based application that complies with the requirements

5. Teaching And Learning Strategies

In this course, the lecturers might deploy several teaching learning strategis, including Brainstroming, Lecture, Class Presentation, Group Discussion, Group Work-Based Activities, Project Based Learning.

6. Textbooks and Other Resources

Textbooks

1. Bill Aulet. (2013). ***Disciplined Entrepreneurship; 24 Steps to A Successful Startup.*** First. John Wiley & Sons. New Jersey. ISBN: 978-1-118-69228 .
2. Nutile, A . (2016). ***Laravel 5.x Cookbook .*** 00 . Packt Publishing. . ISBN: 9781786462084 .

The book in the first list is a must to have for each student.

Other Resources

1. null
2. Adding Advanced Features to Application
3. Authentication,Validation and Security
4. Building Views and Adding Style
5. Customer Profile
6. Data Manipulation and Validation
7. Design The Business Model
8. High Specifications in the Business
9. http://edinteractive.co.uk/static-vs-dynamic-websites-difference/
10. http://github.com/evercode1/sample-project
11. http://hbr.org/2011/01/how-to-design-a-winning-business-model
12. http://igniteselling.com/quantifying-your-value-proposition/
13. http://klariti.com/business-writing/business-requirements-specifications-1/
14. http://laravel.com/docs/4.2/validation
15. http://laravel.com/docs/5.1/testing
16. http://laravel.com/docs/5.4/authentication
17. http://laravel.com/docs/5.4/database
18. http://laravel.com/docs/5.4/http-tests
19. http://laravel.com/docs/5.4/packages
20. http://laravel.com/docs/5.4/pagination
21. http://laravel.com/docs/5.4/pagination#customizing-the-pagination-view
22. http://laravelbook.com/laravel-architecture/
23. http://medium.com/laravel-news/the-simple-guide-to-deploy-laravel-5-application-on-shared-hosting-
24. http://www.businessmodelsinc.com/tips-for-startups-how-to-design-your-business-model/
25. http://www.convinceandconvert.com/social-media-strategy/how-to-create-customer-profiles-to-reach-your-

26. http://www.ducttapemarketing.com/blog/acquire-customers/
27. http://www.infoentrepreneurs.org/en/guides/understand-your-competitors/
28. http://www.packtpub.com/mapt/book/web_development/9781786462084/9
29. http://www.priceintelligently.com/blog/bid/193618/You-re-Leaving-Out-the-Customer-How-to-Quantify-Your-
30. http://www.w3schools.com/php/php_mysql_intro.asp
31. https://hbr.org/2007/11/mapping-your-competitive-position
32. Introduction to Laravel and Database Configuration
33. Introduction to Web Programming and Dynamic Web Content
34. Laravel 5.x Cookbook
35. Laravel Authentication and Authorization
36. Model Implementation
37. Paging and Searching
38. PHP (Hypertext Preprocessor)
39. Project Collection
40. Quantifying Value Proposition
41. Review Material
42. Testing and Debugging Application
43. The Next 10 Customer
44. Using Composer Packages and Routing
45. View and Controller Implementation
46. Where is Your Positions? (Chart Competitive Position)

7. Schedule

Laboratory

Session/Mode	Related LO	Topics	References
1 F2F	LO 2	Introduction to Laravel and Database Configuration − Database and Apps Configuration − Folder Structure − Migration & Seeding − MVC Concept − OOP Concept	− Introduction to Laravel and Database Configuration − Laravel 5.x Cookbook − Introduction to Laravel and Database Configuration http://laravel.com/docs/5.4/packages
2 F2F	LO 2	View and Controller Implementation − Controller − HTML and Layout Styling using Blade − Request and Response − Routing	− View and Controller Implementation − Laravel 5.x Cookbook − View and Controller Implementation http://www.w3schools.com/php/php_mysql_intro.asp

3 F2F	LO 3 LO 4	Model Implementation − Eloquent Relationship − Paging and Searching − Select using Eloquent	− Model Implementation − Laravel 5.x Cookbook − Model Implementation http://laravel.com/docs/4.2/validation
4 F2F	LO 2 LO 3	Data Manipulation and Validation − Data Validation using Validator − Error Messages − File System − Insert, Update, and Delete − Session and Cookies	− − Data Manipulation and Validation − Laravel 5.x Cookbook − Data Manipulation and Validation http://laravel.com/docs/5.4/pagination
5 F2F	LO 4	Laravel Authentication and Authorization − Error Pages − Laravel Authentication and Authorization − Middleware	− − Laravel Authentication and Authorization − Laravel 5.x Cookbook − Laravel Authentication and Authorization http://laravel.com/docs/5.1/testing
6 F2F	LO 2 LO 3 LO 4	Project Collection − Project Collection	− Project Collection − Laravel 5.x Cookbook − Project Collection http://github.com/evercode1/sample-project

Lecture

Session/Mode	Related LO	Topics	References
1 F2F	LO 2	Introduction to Web Programming and Dynamic Web Content − An Introduction to Laravel Web Programming − An Introduction to Web Applications − Static and Dynamic Web Page	− Introduction to Web Programming and Dynamic Web Content − Laravel 5.x Cookbook − Static Vs Dynamic websites http://edinteractive.co.uk/static-vs-dynamic-websites-difference/ − PHP (Hypertext − Preprocessor)

2 F2F	LO 1	Customer Profiles − Build the End User Profile − Defining the Beachhead Market - 7 Criteria of Beachhead Market − Questions of Potential Characteristics of the User Profile	− Customer Profile − How to Create Customer Profile to Reach Your Target Audience http://www.convinceandconvert.com/social-media- − strategy/how-to-create- customer-profiles-to- reach-your-target-audience/
3 F2F	LO 2 LO 3	Using Composer Packages and Routing − Basic Routing − Commands − Configuration − Default Package Configuration − Public Assets − Publishing Views − Route Groups − Route Parameters − Routes − Service Providers	− Using Composer Packages and Routing − Laravel 5.x Cookbook − Using Composer Packages and Routing http://laravel.com/docs/5.4/packages
4 F2F	LO 3	Building Views and Adding Style − Introduction − Writing CSS − Writing JavaScript − Writing Vue Components	− Adding Advanced Features to Application − Laravel 5.x Cookbook − Adding Advanced Features to Application http://www.packtpub.com/mapt/book/web_development/9781786462084/9
5 GSLC	LO 1	The Next 10 Customers? − Dealing with Negative Impacts − Focus on What to Do − Identifying the Next 10 Customers − Making Connection with the Customers − Validity of the Current Customers	− The Next 10 Customer − Acquire Customers http://www.ducttapemarketing.com/blog/acquire-customers/

6 F2F	LO 3	Paging and Searching − Configuration − Database Transactions − Manually Creating a Paginator − Paginating Query Builder Results − Paginator Instance Methods − Read & Write Connections − Running Raw SQL Queries − Using Multiple Database Connections	− Paging and Searching − Laravel 5.x Cookbook − Database- Pagination http://laravel.com/docs/5.4/pagination#customizing-the-pagination-view
7 F2F	LO 1	Quantifying Value Proposition − Aligning the VP with the Customers' Desire − Understanding What the Customers Want	− Quantifying Value Proposition − Quantifying Your Value Propositions http://igniteselling.com/quantifying-your-value-proposition/ − You're Leaving Out How the Customer Create the Value of Your Business − http://www.priceintelligently.com/blog/bid/193618/You-re-Leaving-Out-the-Customer-How-to-Quantify-Your-Value-Propositions
8 F2F	LO 3 LO 4	Authentication,Validation and Security − Authentication Users − Definition of Authentication − Exercises and Answer − HTTP Basic Authentication − Manually Logging In Users − Password Reminder Controller − Password Reminders & Reset − Password Validation - Encryption − Protecting Routes	− Authentication, Validation and Security − Laravel 5.x Cookbook − Authentication http://laravel.com/docs/5. 4/authentication − Authentication and Security http://laravel.com/docs/5.4/authentication

9 GSLC	LO 1	Where is Your Positions? (Chart Competitive Position) − Charting the Competitive Position − Knowing the Thoughest Competitor – The Status Quo	− Where is Your Positions? (Chart Competitive Position) − Understand Your Competitor http://www.infoentrepreneurs.org/en/guides/understand − -your-competitors/ − Mapping Your Positions https://hbr.org/2007/11/mapping-your-competitive-position
10 F2F	LO 4	Testing and Debugging Application − Sessions / Authentication − Application Testing − Introduction − Mocking − PHPUnit Assertions − Testing JSON APIs	− Testing and Debugging Application − Laravel 5.x Cookbook − Testing application − http://laravel.com/docs/5.4/http-tests
11 GSLC	LO 1	Designing Business Model of the Business − Categorizing the Business Model − Key Factor of Designing the Business Model of the Business	− Design The Business Model − How to Design a Winning Business Model http://hbr.org/2011/01/how-to- design-a-winning- business-model − Tips for Startups How to Design Your Business Model http://www.businessmodelsinc. com/tips-for-startups- how-to-design-your-business-model/
12 F2F	LO 4	Adding Advanced Features to Application − Column and field order − Custom CSS and JS for CRUD operations − Customize Views for each CRUD Panel − Details Row − Export buttons − Extra CRUD Routes − Extras (fake fields, stored as JSON in the database) − Media Library (file manager) − Reordering and nesting items − Revisions − Tabbed Form and Inline Errors − Translatable models and multi-language CRUDs	− Adding Advanced Features to Application − Laravel 5.x Cookbook − Adding Advanced Features to Application http://www.packtpub.com/mapt/book/web_development/9781786462084/9

13 F2F	LO 1 LO 2 LO 3 LO 4	Review Material − Quiz − Review All Material For Final Exam	− Review Material − Laravel 5.x Cookbook − Review Material http://medium.com/laravel-news/the-simple-guide-to-deploy-laravel-5-application-on-shared-hosting-1a8d0aee923e

8. Evaluation

Laboratory

Assessment Activity	LO			
	1	2	3	4
ASSIGNMENT	✓	✓	✓	✓
FINAL EXAM			✓	✓
MID EXAM	✓	✓	✓	

Lecture

Assessment Activity	LO			
	1	2	3	4
ASSIGNMENT	✓	✓	✓	✓
FINAL EXAM			✓	✓
MID EXAM	✓	✓	✓	

Final Evaluation Score

Aspects	Weight
Practicum	20%
Theory	80%

9. Assessment Rubric (Study Program Specific Outcomes)

LO	Indicators	Proficiency Level			
		Excellent (85 - 100)	**Good (75 - 84)**	**Average (65 - 74)**	**Poor (<= 64)**
LO 1	1.1. Ability to construct good business plan	The business plan is constructed perfectly with all necessary items included	The business plan is constructed, contains of at least business overview, business model, marketing and sales plan, financial analysis and implementation road.	The business plan is constructed, contains of at least business overview, business model, marketing and sales plan, financial analysis.	The business plan is constructed, contains of at least business overview, business model, marketing and sales plan, without financial analysis.
	1.2. Ability to showcase business plan	Business plan is showcased creatively and attractively with real product or service	Business plan is showcased creatively and attractively but without real product or service	Business plan is showcased but not creatively or attractively and without real product or service	Poor business plan showcased without real product or service
LO 2	2.1. Ability to explain basic concepts to create web based application	Basic concepts are clearly stated and relevant	Basic concepts are clearly stated	Basic concept are is not clearly stated	Basic concept is inappropriate
	2.2. Ability to explain basic concept to create client side scripting with laravel framework with php	Basic concepts are clearly stated and relevant	Basic concepts are clearly stated	Basic concept are is not clearly stated	Basic concept is inappropriate
LO 3	3.1. Ability to use web design basic elements to create simple static web page	Web design basic elements are used properly	Web design basic elements are not used properly	Web design basic elements are used wrongly (used for different purpose)	Web design basic elements are use inappropriate
	3.2. Ability to build a web page with client side scripting PHP	The website is 100% appropriate	The website is 90% - 99% appropriate	The website is 80% - 89% appropriate	The website is less than or equal to 79 % appropriate
	3.3. Ability to create dynamic web with PHP	Web page is built perfectly and relevant with PHP	Web page is built perfectly but not relevant with PHP	Web page is built not 100% perfectly, not relevant with PHP	Web page is built inappropriate (not working and can not use PHP)

LO 4	4.1. Ability to create web application based on user requirements	The web site adopt 100% of user requirements	The web site adopt 90% - 99% of user requirements	The web site adopt 80% - 89% of user requirements	The web site adopt less than or equal to 79% of user requirements
	4.2. Ability to construct web application with database connection	Web application is constructed perfectly and connected with database	Web application is constructed perfectly but with poor connection of database	Web application is constructed perfectly without database connection	Web application is constructed inappropriate
	4.3. Ability to build web application using appropriate PHP functionalities	The web application functionalities work 100%	The web application functionalities work 90-99%	The web application functionalities work 80-89%	The web application functionalities work less than or equal to 79%

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