

KLS Gogte Institute of Technology, Belagavi
Department of Computer Science & Engineering **Program : BE** **Academic Year: 2019-20**
Internal Assessment Test I
Course: Advanced Web (Elective) **Semester : V** **Code: 16CS551**
Max. Marks: 25 **Duration: 1 Hr.** **Date: 18/09/2019**
Instructions: Answer any 5 out of 7 questions. Each carry equal Marks.

1. Define ajax? Bring out the difference between tradition model and ajax model with appropriate diagram. List and explain any five basic principles of ajax. [L2, CO1, PO1]. 5M
 2. Define Angular Js? Differentiate one way data binding and two way data binding with appropriate diagram. [L1,L2, CO1, PO1]. 5M
 3. Define the following [L1, CO1, PO1]. 5M
a.Cache Control b. Full stack development c.Node Js d.mongoose e.github
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KLS Gogte Institute of Technology, Belagavi
Department of Computer Science & Engineering **Academic Year: 2018-19**

Internal Assessment Test I – FAST TRACK

Subject: Advanced Web (Elective) **Code: 16CS551**
Semester: V **Date: 01/07/2019**
Max. Marks: 25 **Duration: 1 Hr.**

Note: Answer any 5 questions.5 Marks each.

1. a) Illustrate the HTTP response format with proper example. [L3, CO1, PO3]. 5M
b) List out the common status codes for HTTP response.
 2. Define Angular Js? Differentiate between relational and document databases. [L1,L2, CO1, PO1]. 5M
 3. List and explain the Application Architecture options for building a MEAN Stack application with appropriate diagram. [L1,L3, CO1, PO1]. 5M
 4. Explain the five different stages of rapid prototype development in building the MEAN stack application [L3, CO1, PO1]. 5M
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Fourth Semester B.E. Fast Track Semester End Examination Oct/Nov 2020
Advanced Web Programming

1. List and explain any five basic principles of ajax L2 CO-1, PO1 05M
2. Write an ajax code to fetch content from a text file and display it on the webpage. L3,CO-1,PO-3 10M
3. Explain with example code methods and properties of XMLHttpRequest object L2, CO-1,PO-1 10M
4. Write a code to implement Google Suggest like feature using Ajax and PHP L3, CO-1,PO-3 10M
5. a. Explain with the Diagram one-way data binding and two-way data binding. L2, CO-1,PO-1 10M

- b. What is the difference between development hardware and production hardware ? Recommend suitable hardware architecture for the following Scenarios. Justify your recommendations.
- An application with low amount of traffic
 - For Platform as a Service
 - Growing traffic
 - Overloading traffic or thousands of requests per second. L5, CO-1, PO-3 10M
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KLS Gogte Institute of Technology, Belagavi
Department of Computer Science & Engineering Academic Year: 2020-21

Internal Assessment Test I – FAST TRACK

Subject: Advanced Web (Elective)
Semester: V
Max. Marks: 25

Code: 16CS551
Date: 30/08/2021
Duration: 2 Hr.

Note: Answer any 5 questions. 5 Marks each.

1. Define Angular Js? Differentiate between relational and document databases.
[L1, L2, CO1, PO1]. 5M
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Department of Computer science and Engineering
Fifth Semester – Advanced Web (16CS551)
Open Book Assignment -1
Submission Date: 01-09-2021

- 1 Design a html form for Student registration form along with the following information : Student Name, USN, Branch, Semester. Perform form validation of all the fields with appropriate event handlers using AJAX.
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**Fourth Semester B.E. Fast Track Semester End Examination Oct/Nov 2021
Advanced Web Programming**

- a. Compare classic web application model with Ajax Web application model L2 CO-1, PO1 05M
- a. Explain the benefits of full stack development. L2, CO-1, PO-1 05M
b. Which is the better approach : Single threaded web server or multithreaded server ? Justify your answer with proper reasoning. L4 CO-1 PO-1 05 M
- a. Explain with the diagram MEAN stack architecture. Also explain the purpose of each technology in MEAN stack. L2, CO-1, PO-1 10M
b. Recommend a suitable MEAN stack architecture for blog application. The blog application has to interfaces one for blog entries and another for admin interface. While designing architecture

consider conflicting requirements of both the interfaces i.e., blog entries and admin interfaces L5,
CO-1, PO-3 10M

KLS Gogte Institute of Technology, Belagavi
Department of Computer Science & Engineering **Academic Year: 2021-22(ODD SEM)**
Program: B.E (Computer Science) **Semester: 5**
Course Title: ADVANCED WEB **Assignment – 1** **Code: 18CS551**

Duration: 1 Hr **Date: 01-12-2021**
Answer all questions(Each question carries equal marks)

Q. No.		[L]]	[CO]	[PO]
1	Define AJAX. How is it different from traditional development? List and explain in brief any 5 websites using AJAX.	1,2	1	1
2	Develop a web page which reads from a text file and on click of a button, displays the content using AJAX.	3	1	2
3	Explain (i) DOM (ii) DOM tree. Develop a page to update page content dynamically using DOM.	2,3	2	2
4	Explain (i) Node.js and its benefits. (ii) AngularJS and its benefits. Explain with diagram one-way data binding and two-way data binding.	2	2	3
5	Explain the 5 stages of the development of a website.	2	2	3

1. Explain the different request methods and any *five* HTTP status codes available for REST API
2. What are the rules of REST API? Explain How REST API processes HTTP requests with proper diagram
3. Explain the Request methods for REST API.
4. How to delete a document in MongoDB given an ID ? Write the controller code for it.
- 5
 - a. Explain the working of REST API's with diagram.
 - b. Explain the following
 - i. Validating at the application level with Node and Express.
 - ii. Validating in the browser with JQuery. \
 - iii. Explain the Request Methods for REST APIs
6.
 - a. Explain
 - iv. Deleting document in MongoDB
 - v. Deleting a subdocument from MongoDB
7. How do you find a single document and a sub-document in MongoDB using Mongoose
8. Explain how to find a single document based in IDs using GET method. Develop the snippet of code by using the findById and exec methods.
9. Explain the building of the API request and using the response data to develop a sample Web page.
10. Develop a snippet of code to query the API using a unique ID from a URL parameter
11. Explain in brief how to call an API from Express using:
 - (i) Adding the request module
 - (ii) Setting up default options
 - (iii) Using the request module

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16CS551

Fifth Semester B.E. Semester End Examination, Dec./Jan. 2019-20

ADVANCED WEB PROGRAMMING

Time: 3 Hours

Max. Marks: 100

- Instructions:** 1. Answer one full question from each unit.
2. Draw the diagrams wherever necessary.

UNIT - I

L	CO	PO	M
(1)	(1)	(1)	(04)
(2)	(1)	(1)	(06)
(2)	(1)	(1)	(10)

- 1 a. List out difference between frames and hidden frames

- b. Explain HTTP responses along with status codes

- c. Write a short note on

i)Google Suggest ii)Gmail iii)Google Maps iv) Yahoo News v) Bitflux Blog

OR

- 2 a. List and Explain any six principles of Ajax.

- b. Describe with the diagram the advantages and disadvantages of XHR.

- c. Define Design patterns. Explain predictive fetch pattern and submission throttling pattern.

UNIT - II

L	CO	PO	M
(1)	(1)	(1)	(05)
(2)	(1)	(1)	(10)
(3)	(1)	(1)	(05)

- 3 a. List the benefits of full stack development.

- b. Explain with the diagram one-way data binding and two-way data binding.

- c. Write a short note on hardware architecture for MEAN stack development.

OR

- a. Compare relational databases and document databases.

- b. Explain with the diagram MEAN stack architecture. Also explain the purpose of each technology in MEAN stack.

- c. List and explain rapid prototype development stages of MEAN stack architecture.

UNIT - III

L	CO	PO	M
(2)	(1)	(1)	(05)
(5)	(2)	(3)	(10)
(2)	(1)	(1)	(05)

- 5 a. Explain request response flow of MVC architecture.

- b. The
- `add_review`
- page must contain a form with name, rating and review fields which the user will fill in and submit for a particular location. The appropriate error handling mechanism must be added for the submission of the form. Write the code for
- `add_review.jade`
- and design the appropriate desktop and mobile screen layouts for the same.

- c. Explain how you test routes and controllers.

OR

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|---|----|---|-----|-----|-----|------|
| 6 | a. | Illustrate defining of package.json file. | (4) | (1) | (1) | (05) |
| | b. | Explain the steps involved in pushing the site live using Git. | (2) | (1) | (1) | (05) |
| | c. | Write the code for complete database connection file using mongoose | (3) | (2) | (3) | (10) |

UNIT - IV

L CO PO M

- | | | | | | | |
|---|----|---|-----|-----|-----|------|
| 7 | a. | Differentiate between good API and bad API and List down the various HTTP status codes. | (2) | (3) | (1) | (10) |
| | b. | Explain DELETE method to remove data from MongoDB. | (2) | (3) | (1) | (10) |

OR

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|---|----|--|-----|------|-----|------|
| 8 | a. | Define REST API and its rules. Explain how REST API processes HTTP requests. | (2) | (3) | (1) | (05) |
| | b. | Explain how to update an existing subdocument in MongoDB | (2) | (3) | (1) | (05) |
| | c. | Explain | | | | |
| | | i) Validating at the application level with NODE and Express | | | | |
| | | ii) Validating with browser with jQuery | (2) | (03) | (1) | (10) |

UNIT - V

L CO PO M

- | | | | | | | |
|---|----|---|-----|-----|-----|------|
| 9 | a. | Describe how to add angular to Express application | (2) | (1) | (1) | (05) |
| | b. | Write a short note on one-way password encryption using hashes and salts. | (2) | (1) | (1) | (05) |
| | c. | Explain the Full MEAN stack approach for authentication | (2) | (3) | (1) | (10) |

OR

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|----|----|--|-----|-----|-----|------|
| 10 | a. | Explain how to make HTTP requests from angular to an API | (2) | (3) | (1) | (10) |
| | b. | Elaborate on how do you improve browser performance | (2) | (1) | (1) | (10) |

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16CS551

Fifth Semester B.E. Makeup Examination, January 2020

ADVANCED WEB PROGRAMMING

Time: 3 Hours

Max. Marks: 100

- Instructions: 1. Answer one full question from each unit.
2. Draw the diagrams wherever necessary.

UNIT - I

L CO PO M

- 1 a. Compare classic Web Application model with Ajax web application model
(02) (01) (01) (05)
- b. Write the code to retrieve customer information by receiving customer ID as input with the help of Ajax using XHR GET method.
(03) (02) (03) (10)
- c. Explain the Ajax Fallback patterns
(02) (01) (01) (05)

OR

- 2 a. Consider a system where a user registers himself/herself with an html form having minimal information. There is another user called administrator who verifies the registration data of the users and approves their registration. The notification related to registration is received by the user within 24 hours. The login to the system is possible only when the registration is successful. Mention the design pattern that must be used to develop the system and write the code for the same.
(05) (02) (03) (10)
- b. Explain how do you handle multiple browser implementations in Ajax with example.
(02) (01) (01) (05)
- c. Write a note on cache control
(02) (01) (01) (05)

UNIT - II

L CO PO M

- 3 a. Write a short note on Supporting cast for MEAN stack application development.
(03) (01) (01) (05)
- b. Explain the need for the planning of MEAN stack application. Also describe the screens required for the Loc8r Application
(02) (01) (01) (05)
- c. What is the difference between development hardware and production hardware? Recommend suitable hardware architecture for the following cases.
i) An application with low amount of traffic
ii) For platform as a service
iii) Growing traffic
iv) Overloading traffic or thousands of requests per second
(05) (01) (03) (10)

OR

- 4 a. Recommend suitable MEAN stack architecture for blog application. The blog application has two interfaces one for blog entries and another for admin interface. While designing architecture consider conflicting architecture requirements of both the interfaces i.e., blog entries and admin interfaces.
(05) (01) (03) (10)
- b. Describe the steps in designing the Loc8r application with appropriate diagrams

UNIT - III

- | | | L | CO | PO | M |
|---|--|------|------|------|------|
| 5 | a. Explain the key interactions and processes that Express goes through when responding to the request for the default landing page. | (02) | (01) | (01) | (10) |
| | b. Explain Bootstrap's responsive grid system with appropriate diagram | (02) | (01) | (01) | (05) |
| | c. Design the mongoose schema for Details page of loca8r application with sample data | (03) | (02) | (03) | (05) |

OR

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|---|--|------|------|------|------|
| 6 | a. Explain how do you import bootstrap for responsive layouts | (02) | (01) | (01) | (10) |
| | b. What is mongoose? Explain how mongoose models the data. | (02) | (01) | (01) | (05) |
| | c. Explain how a relational database and document database store repeating information relating to a parent element. | (02) | (01) | (01) | (05) |

UNIT - IV

- | | | L | CO | PO | M |
|---|---|------|------|------|------|
| 7 | a. Explain the request methods of REST API | (02) | (03) | (01) | (05) |
| | b. Illustrate creation of
i) New Document in MongoDB.
ii) Subdocument in MongoDB. | (02) | (03) | (01) | (10) |
| | c. Explain the validation at the schema level with mongoose. | (02) | (03) | (01) | (05) |

OR

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|---|--|------|------|------|------|
| 8 | a. Explain how to find out a single subdocument based on IDs using GET method. | (02) | (03) | (01) | (05) |
| | b. Explain how to pass the data from API to the view | (02) | (03) | (01) | (05) |
| | c. Describe how to catch errors returned from API | (02) | (03) | (01) | (10) |

UNIT - V

- | | | L | CO | PO | M |
|----|---|------|------|------|------|
| 9 | a. With diagram explain three different request loops associated with approaches for switching from express routing to Angular routing. | (02) | (01) | (01) | (10) |
| | b. Explain traditional server based application approach for authentication | (02) | (01) | (01) | (10) |
| 10 | a. Write a short note \$scope.\$apply(). | (02) | (01) | (01) | (05) |
| | b. How to ensure that forms works as expected? | (02) | (01) | (01) | (05) |
| | c. Explain the steps involved in removing the reliance on server side application | (02) | (01) | (01) | (10) |

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16CS551

Fifth Semester B.E. Semester End Examination, Dec./Jan. 2019-20

ADVANCED WEB PROGRAMMING

Time: 3 Hours

Max. Marks: 100

- Instructions:** 1. Answer one full question from each unit.
2. Draw the diagrams wherever necessary.

UNIT - I

L	CO	PO	M
(1)	(1)	(1)	(04)
(2)	(1)	(1)	(06)
(2)	(1)	(1)	(10)

- 1 a. List out difference between frames and hidden frames

- b. Explain HTTP responses along with status codes

- c. Write a short note on

i)Google Suggest ii)Gmail iii)Google Maps iv) Yahoo News v) Bitflux Blog

OR

- 2 a. List and Explain any six principles of Ajax.

- b. Describe with the diagram the advantages and disadvantages of XHR.

- c. Define Design patterns. Explain predictive fetch pattern and submission throttling pattern.

UNIT - II

L	CO	PO	M
(1)	(1)	(1)	(05)
(2)	(1)	(1)	(10)
(3)	(1)	(1)	(05)

- 3 a. List the benefits of full stack development.

- b. Explain with the diagram one-way data binding and two-way data binding.

- c. Write a short note on hardware architecture for MEAN stack development.

OR

- a. Compare relational databases and document databases.

- b. Explain with the diagram MEAN stack architecture. Also explain the purpose of each technology in MEAN stack.

- c. List and explain rapid prototype development stages of MEAN stack architecture.

UNIT - III

L	CO	PO	M
(2)	(1)	(1)	(05)
(5)	(2)	(3)	(10)
(2)	(1)	(1)	(05)

- 5 a. Explain request response flow of MVC architecture.

- b. The
- `add_review`
- page must contain a form with name, rating and review fields which the user will fill in and submit for a particular location. The appropriate error handling mechanism must be added for the submission of the form. Write the code for
- `add_review.jade`
- and design the appropriate desktop and mobile screen layouts for the same.

- c. Explain how you test routes and controllers.

OR

- 6 a. Illustrate defining of package.json file. (4) (1) (1) (05)
b. Explain the steps involved in pushing the site live using Git. (2) (1) (1) (05)
c. Write the code for complete database connection file using mongoose (3) (2) (3) (10)

UNIT - IV

L CO PO M

- 7 a. Differentiate between good API and bad API and List down the various HTTP status codes. (2) (3) (1) (10)
b. Explain DELETE method to remove data from MongoDB. (2) (3) (1) (10)

OR

- 8 a. Define REST API and its rules. Explain how REST API processes HTTP requests. (2) (3) (1) (05)
b. Explain how to update an existing subdocument in MongoDB (2) (3) (1) (05)
c. Explain
i) Validating at the application level with NODE and Express
ii) Validating with browser with jQuery

(2) (03) (1) (10)
L CO PO M

UNIT - V

- 9 a. Describe how to add angular to Express application (2) (1) (1) (05)
b. Write a short note on one-way password encryption using hashes and salts. (2) (1) (1) (05)
c. Explain the Full MEAN stack approach for authentication (2) (3) (1) (10)

OR

- 10 a. Explain how to make HTTP requests from angular to an API (2) (3) (1) (10)
b. Elaborate on how do you improve browser performance (2) (1) (1) (10)