Sri Lanka Institute of Information Technology

Discuss the value of the use of web services, SOAP, and REST

- Web services are exposed via well-defined and [Choose... ▾] APIs providing [Choose... ▾] integration

- Different types of clients like [Choose... ▾] clients and mobile apps can communicate with web services via the

  [Choose... ▾]

- Web services provide [Choose... ▾] integration opposed to the [Choose... ▾] Integration of the web applications

- The [Choose... ▾] capability of the web services is more [Choose... ▾] than the [Choose... ▾] web

  applications

- SOAP supports both message oriented and [Choose... ▾] oriented communication

- [Choose... ▾] is used to describe the API of the [Choose... ▾] services using the standard format using XML

- [Choose... ▾] uses [Choose... ▾] on Java [Choose... ▾] when developing SOAP web services

- REST uses [Choose... ▾] to depict [Choose... ▾] which are [Choose... ▾] by URIs

- The [Choose... ▾] interfaces of REST web services are based on the URL and [Choose... ▾]

Construct a client-side event handler for a SAVE button (id of this button is "btnSave") of a browser-based Rich Web-based Application, using JS and jQuery, to implement insert operation. This event handler sends the data using DC (AJAX) to a web service to be inserted into a database.

```
[    ] (              ). [    ] ("        "; "        "; "              " (        ) )
{
    $. [        ] (
        {
            [        ] : "www.bank.com/accounts/1234/transactions",
            [        ] : $("#formCheckout"). [        ] (),
            [        ] : "text",
            type : "        ",
            [        ] : [        ] (        , [        ] )
            {
                onCheckoutComplete( [        ] .responseText, [        ] );
            }
            [        ]
        }
    );
});
```

State the advantages and features of the use of web-based applications

[Choose] • can be used to add widgets to web pages rapidly

• Web-site is a collection of [Choose] • web pages where a [Choose] • can interact with the users and

[Choose] • data

• The [Choose] • of the views is [Choose] • using HTML and [Choose] • using CSS for a nice presentation

[Choose] • fonts in [Choose] • allow using any font type for the text on web pages other than the

[Choose] • fonts

• Web-based applications utilize the network based on [Choose] • and related technologies

[Choose] • queries in CSS allow developing content. [Choose] • which match to different types of

[Choose] •

[Choose] • can be used as a server-side [Choose] • to implement the [Choose] • of web-based applications

• The content of the [Choose] • web page can be generated using [Choose] • in backend and [Choose] •
side of the frontend

Question 3

Not yet answered

Marked out of
10.00

⚐ Flag question

Fill the correct word(s) in to value the use of frameworks, libraries, and plug-ins indicating their features.

NOTE: all the characters should be lowercase, no spaces at the beginning or end of the answer.

HINTS: Wordlist – api, calls, configurations, control, drives, framework, inverse of control, libraries, plugins, your code

- Plugins use [configurations] to set up the behavior easily

- The framework [calls] your code, which is referred to as the [invers of control] ✓

- [libraries] contain code for pre-developed and tested features

- [plugins] are developed and tested small application programs, to add features rapidly

- Libraries are called by [your code] providing the [drives] to your code

- [framework] is a collection of libraries, rules, structures, and control, which provides tools to manage the software developmen

- A library provides an [api] for the coder to use its features

- The framework [control] the solution by dictating the overall architecture of the solution

Online Exams

Sri Lanka Institute of Information Technology

Question 1

Not yet answered

Marked out of 10.00

⚑ Flag question

Differentiate the features of 3 different models of version control systems and GIT.

- A [branch ▾] in a repo is an active line of development, which is a [label ▾] pointing to a commit

- Users cannot collaborate using [local ▾] VCSs

- Using GIT, a remote repo can be [cloned ▾] to [local disk ▾] for working

- [centralized ▾] VCSs can enable user collaboration but has a single point of failure

- GIT is a [distributed ▾] VCS, which enables [collaboration ▾] and eliminates [single point of failure ▾]

- A [repository ▾] contains the project and [object database ▾] to store history and [configurations ▾]

- Version control systems are used to manage the [changes ▾] to the source code

- The changed files and [folders ▾] should be first [staged ▾] and then [commit ▾] before [pushing ▾] to the remote repo

- A distributed VCS supports distributed and [non-linear ▾] workflows for speed and [integrity ▾]

- The local project contains files in the [working ▾] area, which will be added to the staging area before committing

☰ Quiz navigation

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 |

Finish attempt ...

Time left 1:43:27

Construct a client-side event handler for a SAVE button (id of this button is "btnSave") of a browser-based Rich Web-based Application, using JS and JQuery, to implement insert operation. This event handler sends the data using DC (AJAX) to a web service to be inserted into a database.

```
$ ( document ). on ( " click ", " #btnSave ", function ( event )
{
    $. ajax (
    {
        url    : "www.bank.com/accounts/1234/transactions",
        type   : $("#formCheckout"),
        datatype : "text",
        type : " ";
        complete : function ( response )
        {
            onCheckoutComplete( response .responseText, status );
        }
    )
    [ I ]
});
```

Differentiate the features of 3 different models of version control systems and GIT

- A [Choose...   ▼] in a repo is an active line of development, which

- Users cannot collaborate using [Choose...   ▼] VCSs

- Using GIT, a remote repo can be [Choose...   ▼] to [Choose...]

- [Choose...   ▼] VCSs can enable user collaboration but has a sin

- GIT is a [Choose...   ▼] VCS, which enables [Choose...]

- A [Choose...   ▼] contains the project and [Choose...]

- Version control systems are used to manage the [Choose...]

- The changed files and [Choose...   ▼] should be first [Choose]

- [Choose...   ▼] to the remote repo

- A distributed VCS supports distributed and [Choose...   ▼] w

- The local project contains files in the [Choose...   ▼] area. w

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Distinguish the use of AngularJS in client-side development of Rich Web-based Applications

- Angular uses [typescript] , which overcomes the issues in [   ] such as no [   ] , hence difficult to find errors

- TypeScript uses [   ] types and [   ] OOP, therefore, good for [   ] applications development

- Angular has a [   ] feature, which enables automatic synchronization of data between the view and [   ] components

- Dependency injection in Angular allows injecting the [   ] to the [   ]

service classes	model	JavaScript	compilation	TypeScript	large	data-binding	support

components	static

Question 1

Not yet answered

Marked out of 10.00

⚑ Flag question

Differentiate the features of 3 different models of version control systems and GIT.

• A [branch ▼] in a repo is an active line of development, which is a [label ▼] pointing to a commit

• Users cannot collaborate using [local ▼] VCSs

• Using GIT, a remote repo can be [centralized ▼] [Choose... ▼] for working

• [centralized ▼] VCSs can enable user collaboration but has a single point of failure

• GIT is a [distributed ▼] VCS, which enables [integrity ▼] and eliminates [single point of failure ▼]

• A [repository ▼] contains the project and [Choose... ▼] to store history and [Choose... ▼]

• Version control systems are used to manage the [changes ▼] to the source code

• The changed files and [folders ▼] should be first [staged ▼] and then [commit ▼] before [pushing ▼] to the remote repo

• A distributed VCS supports distributed and [non-linear ▼] workflows for speed and [collaboration ▼]

• The local project contains files in the [working ▼] area, which will be added to the staging area before commiting
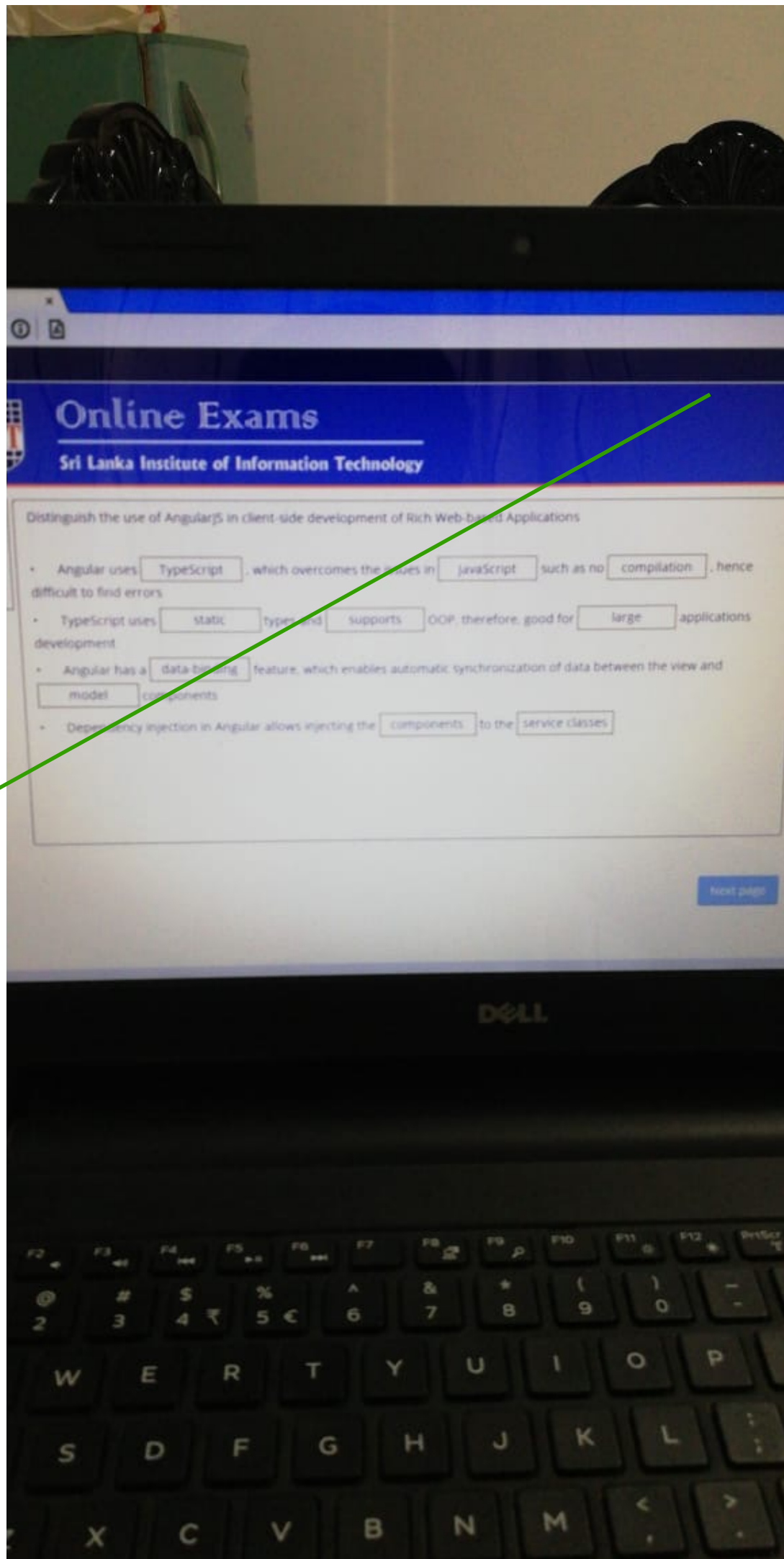
02 VIEW DEVELOPMENT PLUG-INS

- Plug-ins are mainly to add widgets to the Views
  - However, may contain interactive components as well
  - Therefore, can be seen as micro-applications

- DateDropper - https://felicegattuso.com/datedropper/

- MODAAL - http://humaan.com/modaal/

- https://www.cssdesignawards.com/blog/10-cool-css-and-javascript-tuts-and-plugins/50/

  www.creativeblog.com/jquery/top-jquery-plugins-6133175

Online Exams

Sri Lanka Institute of Information Technology

Distinguish the use of AngularJS in client-side development of Rich Web-based Applications

- Angular uses [TypeScript] , which overcomes the issues in [JavaScript] such as no [compilation] , hence difficult to find errors

- TypeScript uses [static] types and [supports] OOP, therefore, good for [large] applications development

- Angular has a [data binding] feature, which enables automatic synchronization of data between the view and [model] components

- Dependency injection in Angular allows injecting the [components] to the [service classes]

[Next page]

Distinguish the industry practices in software development and tools by their advantages

i think this is final paper question

- Forums are used to communicate and [discuss ▾] related matters online

- [runtimes ▾] provide application-level virtualization

- [plugin ▾] improve the [efficiency ▾] by distributing the [libraries ▾] of web-based systems

- Dockers are a type of [virtualization ▾], which provides [containers ▾] level virtualization

- Quality code increases the [efficiency ▾] by unnecessary recourses [elimination ▾]

- [virtualization ▾] can be used to minimize the difference in development and [OS ▾] environments

- Documenting and [refactoring ▾] can improve the quality of the code

- Website [content ▾] can be improved by distributing content closer to the [visitors ▾]

- [dependency management ▾] tools help to manage external artefacts like [plugin ▾]

- Maven saves the dependency and [content ▾] details in [POM ▾] using XML

- VMs are used to virtualize [hardware ▾] systems, similar to [emulators ▾]

Question 3

Not yet answered

Marked out of 10.00

⚐ Flag question

State the advantages and features of the use of web-based applications

- [plug-ins ▾] can be used to add widgets to web pages rapidly

- Web-site is a collection of [static ▾] web pages where a [web application ▾] can interact with the users and [formatted ▾] data

- The [content ▾] of the views is [developed ▾] using HTML and [JavaScript ▾ ⟳] using CSS for a nice presentation

  Choose...
  formatted
  developed
  content
  CSS
  device
  web application
  web
  structures
  plug-ins
  static
  dynamic
  HTTP
  media
  screens
  Java code
  Java
  server-model
  process
  JavaScript

- [web ▾] fonts in [CSS ▾] allow using any font type fo̶ ges other than the [device ▾] fonts

- Web-based applications utilize the network based on [HTTP ▾] and

- [media ▾] queries in CSS allow developing content [structures ▾] o different types of [screens ▾]

- [Java ▾] can be used as a server-side [framework ▾] to imp nodel ▾] of web-based applications

- The content of the [dynamic ▾] web pages can be generated using J backend and [JavaScript ▾] code in the frontend

≡ **Quiz navigation**

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| 9 | 10 |

Finish attempt...

Time left 1:15:10

Sri Lanka Institute of Information Technology

Differentiate the features of 3 different models of version control systems and GIT.

- A [branch ▾] in a repo is an active line of development. which is a [label ▾] pointing to a commit

- Users cannot collaborate using [local ▾] VCSs

- Using GIT, a remote repo can be [cloned ▾] to [local ▾] for working

- [centralized ▾] VCSs can enable user collaboration but has a single point of failure

- GIT is a [distributed ▾] VCS, which enables [collaboration ▾] and eliminates [single point of failure ▾]

- A [repository ▾] contains the project and [object database ▾] to store history and [configurations ▾]

- Version control systems are used to manage the [Choose... ▾] to the source code

- The changed files and [folders ▾] should be first [commit ▾] and then [staged ▾] before [pushing ▾] to the remote repo

- A distributed VCS supports distributed and [non-linear ▾] workflows for speed and [integrity ▾]

- The local project contains files in the [local disk ▾] area, which will be added to the staging area before committing

Question 3

Not yet answered

Marked out of 10.00

⚐ Flag question

Fill the correct word(s) in to value the use of frameworks, libraries, and plug-ins indicating their features.

NOTE: all the characters should be lowercase, no spaces at the beginning or end of the answer.

HINTS: Wordlist – api, calls, configurations, control, drives, framework, inverse of control, libraries, plugins, your code

- Plugins use [_____] to set up the behavior easily

- The framework [_____] your code, which is referred to as the [_____]

- [_____] contain code for pre-developed and tested features

- [_____] are developed and tested small application programs, to add features rapidly

- Libraries are called by [_____] providing the [_____] to your code

- [_____] is a collection of libraries, rules, structures, and control, which provides tools to manage the software development

- A library provides an [_____] for the coder to use its features

- The framework [_____] the solution by dictating the overall architecture of the solution
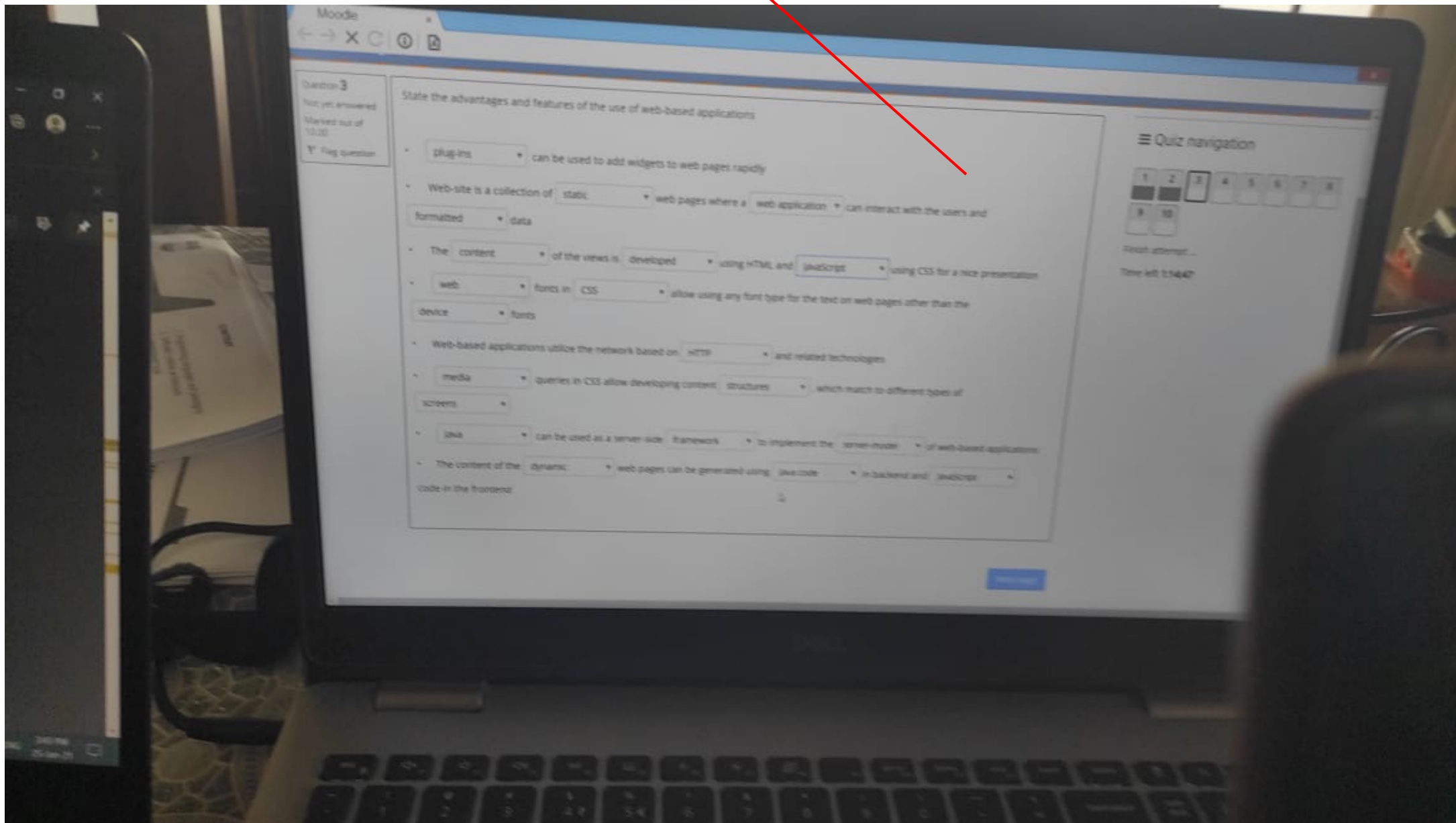
Next page

Distinguish the use of AngularJS in client-side development of Rich Web-based Applications

- Angular uses [TypeScript] , which overcomes the issues in [JavaScript] such as no [compilation] , hence difficult to find errors

- TypeScript uses [static] types and [supports] OOP, therefore, good for [large] applications development

- Angular has a [data-binding] feature, which enables automatic synchronization of data between the view and [model] components

- Dependency injection in Angular allows injecting the [components] to the [service classes]

... of the distributed systems.

- Choose... ▼ architecture extends the basic Choose... ▼ architecture by adding a Choose... ▼

- XML can be used to Choose... ▼ and transport Choose... ▼ and readable by both human and Choose... ▼

- In Choose... ▼ architecture, the Views deliver the Choose... ▼ , the Model implements the Choose... ▼ , and the Controllers handle the Choose... ▼

- Choose... ▼ Improve the scalability of the system compared to Choose... ▼ architecture

- SOAP is Choose... ▼ -oriented. REST is Choose... ▼ -oriented, and CORBA is Choose... ▼ -oriented communication techniques/technologies

- Distributed systems use Choose... ▼ for processing, Choose... ▼ for communications, and Choose... ▼ to link them

- REST uses Choose... ▼ based data passing where SOAP uses Choose... ▼ based data passing

pre question

Question 3

Not yet answered

Marked out of
10.00

Flag question

State the advantages and features of the use of web-based applications

- plug-ins ▼ can be used to add widgets to web pages rapidly

- Web-site is a collection of static ▼ web pages where a web application ▼ can interact with the users and formatted ▼ data

- The content ▼ of the views is developed ▼ using HTML and JavaScript ▼ using CSS for a nice presentation

- web ▼ fonts in CSS ▼ allow using any font type for the text on web pages other than the device ▼ fonts

- Web-based applications utilize the network based on HTTP ▼ and related technologies

- media ▼ queries in CSS allow developing content structures ▼ which match to different types of screens ▼

- Java ▼ can be used as a server side framework ▼ to implement the server-model ▼ of web-based applications

- The content of the dynamic ▼ web pages can be generated using Java code ▼ in backend and JavaScript ▼ code in the frontend

Quiz navigation

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

| 9 | 10 |

Finish attempt...

Time left 1:14:47

Differentiate the features of 3 different models of version control systems and GIT.

- A [branch ▾] in a repo is an active line of development, which is a [label ▾] pointing to a commit

- Users cannot collaborate using [local ▾] VCSs

- Using GIT, a remote repo can be [cloned ▾] to [local disk ▾] for working

- [centralized ▾] VCSs can enable user collaboration but has a single point of failure

- GIT is a [distributed ▾] VCS, which enables [collaboration ▾] and eliminates [single point of failure ▾]

- A [repository ▾] contains the project and [object database ▾] to store history and [configurations ▾]

- Version control systems are used to manage the [changes ▾] to the source code

- The changed files and [folders ▾] should be first [staged ▾] and then [commit ▾] before [pushing ▾] to the remote repo

- A distributed VCS supports distributed and [non-linear ▾] workflows for speed and [integrity ▾]

- The local project contains files in the [cloned ▾] area, which will be added to the staging area before committing

Distinguish the industry practices in software development and tools by their advantages

- Forums are used to communicate and [discuss ▼] related matters online

- [runtimes ▼] provide application-level virtualization

- [availability ▼] improve the [loading time ▼] by distributing the [content ▼] of web-based systems

- Dockers are a type of [containers ▼], which provides [OS ▼] level virtualization

- Quality code increases the [efficiency ▼] by unnecessary recourses [elimination ▼]

- [virtualization ▼] can be used to minimize the difference in development and [implementation ▼] environments

- Documenting and [refactoring ▼] can improve the quality of the code

- Website [CDNs ▼] can be improved by distributing content closer to the [visitors ▼]

- [dependency management ▼] tools help to manage external artefacts like [plugin ▼] using XML

- Maven saves the dependency and [libraries ▼] details in [POM ▼]

- VMs are used to virtualize [hardware ▼] systems, similar to [emulators ▼]

Fill the correct word(s) in to value the use of frameworks, libraries, and plug-ins indicating their features.

NOTE: all the characters should be lowercase, no spaces at the beginning or end of the answer.

HINTS: Wordlist – api, calls, configurations, control, drives, framework, inverse of control, libraries, plugins, your code

- Plugins use [configurations] to set up the behavior easily

- The framework [calls] your code, which is referred to as the [inverse of control]

- [libraries] contain code for pre-developed and tested features

- [plugins] are developed and tested small application programs, to add features rapidly

- Libraries are called by [your code] providing the [control] to your code

- [framework] is a collection of libraries, rules, structures, and control, which provides tools to manage the software development

- A library provides an [api] for the coder to use its features

- The framework [drives] the solution by dictating the overall architecture of the solution

Separate different program paradigms by their unique characteristics.

- [Imperative ▼] ✓ programming uses a list of code without any blocks

- [Non-structured ▼] ✓ programming uses different types of blocks to structure the code

- [Procedures ▼] ✓ can be used to implement a single complete algorithm

- [Structured ▼] ✓ programming has side-effects

- [Object-oriented ▼] ✓ programming uses [inheritance ▼] to show the parent-child relationship

- [Event-driven ▼] ✓ programming can respond to user actions like button clicks

- [Declarative ▼] ✓ programming uses functions and origins from [Lambda calculus ▼]

- [Functional ▼] ✓ programming code has the referential transparent property

Construct a client-side event handler for a SAVE button (id of this button is "btnSave") of a browser-based Rich Web-based Application, JS and jQuery, to implement insert operation. This event handler sends the data using DC (AJAX) to a web service to be inserted into a database.

```
$   ( document  ). on  (" click  ", "  #btnSave  ",  function   ( event  )

{

    $. ajax   (

    {

        url     : "www.bank.com/accounts/1234/transactions",

        data    : $("#formCheckout"). serialize    (),

        dataType    : "text",

        type : " post  ",

        success     : function   ( data   , status   )

        {

            onCheckoutComplete( response    .responseText, status   ):

        )

        )|

    }):
```

Construct a client-side event handler for a SAVE button (id of this button is "btnSave") of a browser-based [...] JS and jQuery, to implement insert operation. This event handler sends the data using DC (AJAX) to a web s[...] database.

```javascript
$ ( document ). on (" click ", " #btnSave ", function ( event )
{
    $. ajax (
    {
        url : "www.bank.com/accounts/1234/transactions",
        type : $("#formCheckout"). serialize (),
        dataType : "text",
        type : "        ",
        complete : function ( response , status )
        {
            onCheckoutComplete( response .responseText, status );
        }
    });
});
```

State the advantages and features of the use of web-based applications

- plug-ins ▼ can be used to add widgets to web pages rapidly

- Web-site is a collection of Choose... ▼ web pages where a web application ▼ can interact with the users and
  Choose.... ▼ data

- The Choose.... ▼ of the views is Choose... ▼ using HTML and Choose... ▼ using CSS for a nice presentation
  Choose.... ▼ fonts

- Choose.... ▼ fonts in Choose.... ▼ allow using any font type for the text on web pages other than the
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- Web-based applications utilize the network based on HTTP ▼ and related technologies

- Choose... ▼ queries in CSS allow developing content Choose... ▼, which match to different types of
  Choose... ▼

- Choose... ▼ can be used as a server-side Choose... ▼ to implement the Choose... ▼ of web-based applications

- The content of the dynamic ▼ web pages can be generated using Java On backend and CSS ▼
  code in the frontend

Discuss the value of the use of web services, SOAP, and REST

- Web services are exposed via well-defined and [APIs ▾] *standardized* APIs providing [encapsulated ▾] integration

- Different types of clients like [browser-based ▾] *web base* clients and mobile apps can communicate with web services via the

[APIs ▾]

- Web services provide [dynamic ▾] integration opposed to the [static ▾] integration of the web applications

- The [Choose... ▾] capability of the web services is more [Choose... ▾] *dynamic* than the [Choose... ▾] *static* web applications

- SOAP supports both message oriented and [functional ▾] *procedure* oriented communication

- [WSDL ▾] is used to describe the API of the [WSDL ▾] *SOAP* services using the standard format using XML

- [Choose... ▾] *SOAP* uses [Choose... ▾] *WSDL* on Java [Choose... ▾] *platform* when developing SOAP web services.

- REST uses [Choose... ▾] *HTTP* to depict [Choose... ▾] *operations* , which are [Choose... ▾] *identified* by URIs

- The [Choose... ▾] *uniform* interfaces of REST web services are based on the URL and [Choose... ▾] *HTTP methods.*

SERVICES

—

- Web services are server-side applications, which provides a related set of features

- The services of the web service are exposed via an API

- modular, well-defined, encapsulated interfaces are used for loosely coupled integration between systems

- Loosely coupled architecture, and interacts with client-side components via the API

- Multiple types of clients can communicate with the web-service via the API

  - Browser-based clients, non-browser-based clients (mobile apps), other web services

Design a REST API for a RESTful web service to be used by a media player on

NOTE: HTTP verbs are all caps, URL segments are all lower case, and names

- Load the song ABC ✓

  | GET | : www.player.com/ | songs | /ABC |

- Edit the song ABC's singer

  | PUT | : www.player.com/songs/ABC/meta/ | singer |

  Patch

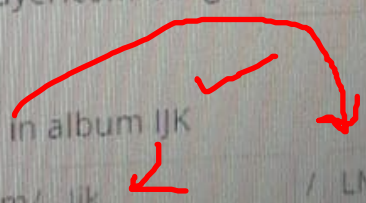- Upload songs to the album XYZ ✓

  | POST | : www.player.com/ | album s | /XYZ |

- Remove the song ABC ✓

  | DELETE | : www.player.com/songs/ | ABC |

- Load the song LMN in album IJK

  GET: www.player.com/ | ijk | / | LMN |

Online Exams

Sri Lanka Institute of Information Technology

Fill the correct word(s) in to value the use of frameworks, libraries, and plug-ins indicating their features.
NOTE: all the characters should be lowercase, no spaces at the beginning or end of the answer.
HINTS: Wordlist – api, calls, configurations, control, drives, framework, inverse of control, libraries, plugins.

- Plugins use `configurations` to set up the behavior easily

- The framework `calls` your code, which is referred to as the `inverse of control`

- `libraries` contain code for pre-developed and tested features

- `plugins` are developed and tested small application programs, to add features rapidly

- Libraries are called by `your code` providing the `control` to your code

- `framework` is a collection of libraries, rules, structures, and control, which provides tools to man

- A library provides an `api` for the coder to use its features

- The framework `drives` the solution by dictating the overall architecture of the solution

State the advantages and features of the use of web-based applications

- [Choose... ▼] can be used to add widgets to web pages rapidly

- Web-site is a collection of [Choose... ▼] web pages where a [Choose... ▼]
  [Choose... ▼] data

- The [Choose... ▼] of the views is [Choose... ▼] using HTML and [Choose...
  ]

- [Choose... ▼] fonts in [Choose... ▼] allow using any font type for the text
  [Choose... ▼] fonts

- Web-based applications utilize the network based on [Choose... ▼] and related t

- [Choose... ▼] queries in CSS allow developing content [Choose... ▼] , wh
  [Choose... ▼]

- [Choose... ▼] can be used as a server-side [Choose...] ▼ to implement th

- The content of the [Choose...] ▼ web pages can be generated using [Choose...

  code in the frontend