



UNIVERSITÀ DEGLI STUDI DI MILANO

CONCORSO PUBBLICO, PER TITOLI ED ESAMI, A N. 1 POSTO DI CATEGORIA D - AREA TECNICA, TECNICO-SCIENTIFICA ED ELABORAZIONE DATI - SVILUPPATORE SOFTWARE, CON RAPPORTO DI LAVORO SUBORDINATO A TEMPO INDETERMINATO PRESSO L'UNIVERSITÀ DEGLI STUDI DI MILANO - CTU - CENTRO PER L'INNOVAZIONE DIDATTICA E LE TECNOLOGIE MULTIMEDIALI, DA RISERVARE, PRIORITARIAMENTE, ALLE CATEGORIE DI CUI AL DECRETO LEGISLATIVO N.66/2010 - CODICE 22308

La Commissione giudicatrice della selezione, nominata con Determina Direttoriale n. 14309 del 18/09/2023, modificata con Determina Direttoriale n. 14982 del 29/09/2023, composta da:

Dott. Fabio Carlo Reguzzoni	Presidente
Dott. Angelo Calo'	Componente
Dott.ssa Sara Ceglie	Componente
Dott.ssa Giulia Marioni	Segretaria

comunica i quesiti relativi alla prova orale:

si riunisce il giorno 16 ottobre 2023 alle ore 14:40 presso Aula informatizzata C07 in Via Mangiagalli n. 25 - Milano, per la formulazione dei quesiti relativi alla prova orale.

Il Presidente ricorda agli altri componenti che, secondo quanto stabilito dalla normativa vigente, occorre decidere preliminarmente i quesiti per la prova orale, che saranno proposti ai candidati previa estrazione a sorte.

La Commissione decide di formulare, per ogni candidato, un gruppo di quesiti costituito da n. 2 domande sugli argomenti oggetto d'esame e da un brano in inglese, da leggere e tradurre, tratto da documentazione tecnica Moodle. I gruppi di quesiti e il brano in inglese vengono poi inseriti in buste chiuse anonime all'esterno, in modo che ogni candidato possa effettuare l'estrazione a sorte. La Commissione predispone un gruppo di quesiti in più rispetto al numero dei candidati ammessi a sostenere la prova orale.

La Commissione procede quindi alla determinazione dei seguenti gruppi di quesiti:

Gruppo di quesiti Traccia A

Domanda 1)

A partire dalla tabella di seguito riportata, il candidato descriva la query SQL necessaria per estrarre il numero di submissions consegnate dallo studente con `userid="851"`



Tabella: mdl_assign_submission

[Visualizza dati](#) [Visualizza struttura](#) [+ Modifica tabella](#) [+ Nuovo elemento](#)

Commento: This table keeps information about student interactions with

Colonna	Tipo	Commento
id	bigint(10) <i>Auto incremento</i>	
assignment	bigint(10) [0]	
userid	bigint(10) [0]	
timecreated	bigint(10) [0]	
timemodified	bigint(10) [0]	
timestarted	bigint(10) <i>NULL</i>	
status	varchar(10) <i>NULL</i>	
groupid	bigint(10) [0]	
attemptnumber	bigint(10) [0]	
latest	tinyint(2) [0]	

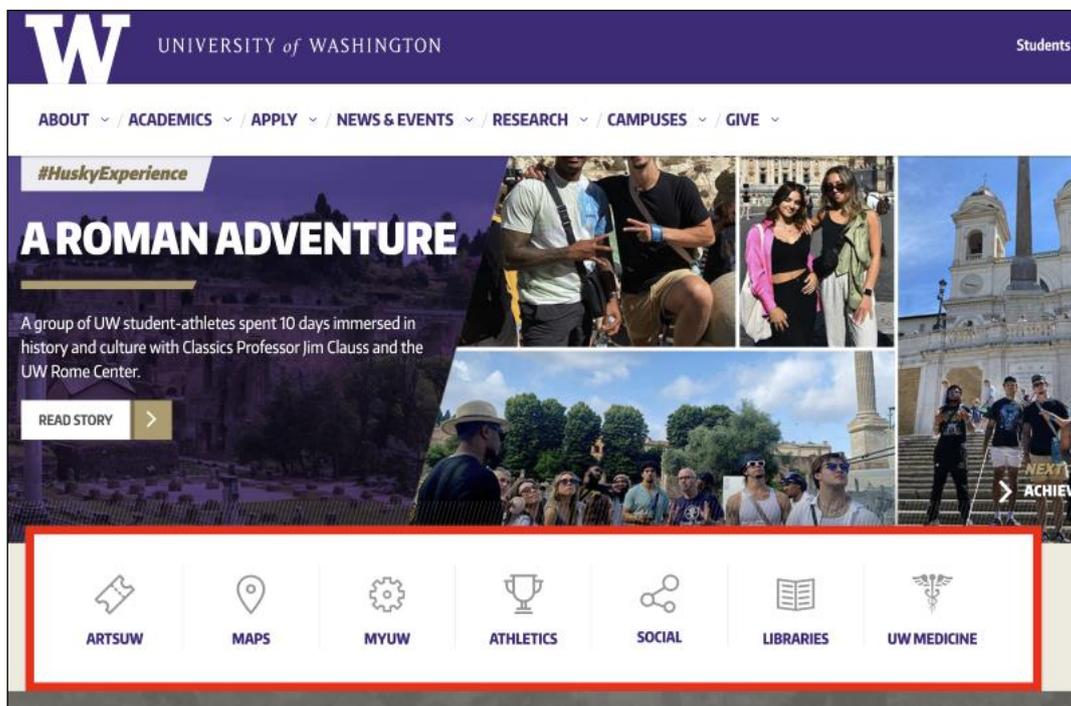
Indici

PRIMARY	<i>id</i>
UNIQUE	<i>assignment, userid, groupid, attemptnumber</i>
INDEX	<i>userid</i>
INDEX	<i>attemptnumber</i>
INDEX	<i>assignment</i>
INDEX	<i>assignment, userid, groupid, latest</i>



Domanda 2)

A partire dalle schermate di seguito riportate, il candidato descriva le modifiche da apportare al codice CSS per realizzare una bordatura in rosso della barra di navigazione





DevTools is now available in Italian!

Always match Chrome's language | Switch DevTools to Italian | Don't show again

Elements | Console | Sources | Network | Performance >>

Styles | Computed | Layout | Event Listeners >>

Filter: :hov .cls + [[]

```
<!DOCTYPE html>
<html class="no-js" lang="en">
  <head>
    <!--[if lt IE 9]> <body class="home blog l
    <!--[if gt IE 8]><!-->
  <body class="home blog cms site-home">
    <!-- GTM Container placement set to auto
    <!-- Google Tag Manager (noscript) -->
    <noscript></noscript>
    <!-- End Google Tag Manager (noscript) --
    <!--<![endif]>-->
    <!-- Start of DoubleClick Floodlight Tag
    IP156748 UW Homepage~IP156748 URL of the
    http://www.washington.edu/ This tag must
    as close as possible to the opening tag.
    <!-- Moved to GTM 6/23/2020 TJS<script t
    ""; var a = axel * 10000000000000; docum
    src="https://ad.doubleclick.net/ddm/acti
    a + '?' width="1" height="1" alt="" styl
    src="https://ad.doubleclick.net/ddm/acti
    width="1" height="1" alt="" style="displ
    <!-- End of DoubleClick Floodlight Tag:
  <div aria-hidden="true" class="uw-search
  <a class="screen-reader-shortcut" href="
  content</a>
  <div id="uw-container">
    <nav aria-hidden="true" aria-label="qu
    <div id="uw-container-inner">
      <header class="uw-thinstrip" role="ba
      <nav aria-label="Main menu" id="dawgc
      <nav aria-label="mobile menu" class='
      </nav>
      <main id="main_content" tabindex="-1"
        <h1 class="offscreen">University Of
        <div aria-labelledby="slideshow-hea
        "region"></div>
      <nav aria-label="popular links" cla
        <::before
        <ul class="center-block"></ul>
        <::after
      </nav>
      <div class="on-campus"></div>
      <div class="uw-charts" style></d
      </main>
      <div class="uw-footer" role="content:
      </div>
      <!-- #uw-container-inner -->
    </div>
  <!-- #uw-container -->
</div>
```

element.style { }

.uw-links { style.css?5d6af5a:9
position: relative;
margin-top: -20px;
background-color: #fff;
~~webkit box shadow:~~
0 0 4px rgba(164,164,164,.5);
box-shadow: 0 0 4px rgba(164,164,164,.5); }

@media (min-width: 1200px)
.container { style.css?ver=3.0.0:9
width: 1170px; }

@media (min-width: 992px)
.container { style.css?ver=3.0.0:9
~~width: 970px;~~ }

@media (min-width: 768px)
.container { style.css?ver=3.0.0:9
~~width: 750px;~~ }

.container { style.css?ver=3.0.0:9
margin-right: auto;
margin-left: auto;
padding-left: 15px;
padding-right: 15px; }

article, aside, details, style.css?ver=3.0.0:9
figcaption, figure, footer,
header, hgroup, main, nav, section, summary {
display: block; }

* { style.css?ver=3.0.0:9
line-height: inherit; }

* { style.css?ver=3.0.0:9
~~webkit box sizing: border-box;~~
~~moz-box-sizing: border-box;~~
box-sizing: border-box; }

nav { user agent stylesheet
~~display: block;~~ }

Inherited from body.home.blog.cms.site-ho...

body { style.css?ver=3.0.0:9



Brano in inglese: Basic Concepts

Through this guide, we will be following the creation of an "HTML" block from scratch in order to demonstrate most of the block features at our disposal. Our block will be named "SimpleHTML". This does not constrain us regarding the name of the actual directory on the server where the files for our block will be stored, but for consistency we will follow the practice of using the lowercased form "simplehtml" in any case where such a name is required.

Whenever we refer to a file or directory name which contains "simplehtml", it's important to remember that only the "simplehtml" part is up to us to change; the rest is standardised and essential for Moodle to work correctly.

Gruppo di quesiti Traccia B

Domanda 1)

A partire dalla tabella di seguito riportata, il candidato descriva la query SQL necessaria per estrarre tutti i dati relativi a tutti i quiz completati dall'utente con `userid="851"`

Tabella: mdl_quiz_attempts

Visualizza dati Visualizza struttura + Modifica tabella + Nuovo elemento

Commento: Stores users attempts at quizzes.

Colonna	Tipo	Commento
id	bigint(10) <i>Auto incremento</i>	
quiz	bigint(10) [0]	
userid	bigint(10) [0]	
attempt	mediumint(6) [0]	
uniqueid	bigint(10) [0]	
layout	longtext	
currentpage	bigint(10) [0]	
preview	smallint(3) [0]	
state	varchar(16) [inprogress]	
timestart	bigint(10) [0]	
timefinish	bigint(10) [0]	
timemodified	bigint(10) [0]	
timemodifiedoffline	bigint(10) [0]	
timecheckstate	bigint(10) <i>NULL</i> [0]	
sumgrades	decimal(10,5) <i>NULL</i>	
gradednotificationsenttime	bigint(10) <i>NULL</i>	

Indici

PRIMARY	<i>id</i>
UNIQUE	<i>quiz, userid, attempt</i>
UNIQUE	<i>uniqueid</i>
INDEX	<i>state, timecheckstate</i>
INDEX	<i>quiz</i>
INDEX	<i>userid</i>



Domanda 2)

A partire dalle schermate di seguito riportate, il candidato descriva le modifiche da apportare al codice CSS per modificare il colore dell'header contenente la scritta "University of Washington" in grigio chiaro.





DevTools is now available in Italian!

Always match Chrome's language | Switch DevTools to Italian | Don't show again

Elements | Console | Sources | Network | Performance >>

Styles | Computed | Layout | Event Listeners >>

Filter: :hov .cls +, -

```
<!DOCTYPE html>
<html class="no-js" lang="en">
  <head>
    <!--[if lt IE 9]> <body class="home blog l
    <!--[if gt IE 8]><!-->
  <body class="home blog cms site-home">
    <!-- GTM Container placement set to auto
    <!-- Google Tag Manager (noscript) -->
    <noscript>
    <!-- End Google Tag Manager (noscript) -
    <!--<![endif]-->
    <!-- Start of DoubleClick Floodlight Tag
    IP156748 UW Homepage~IP156748 URL of the
    http://www.washington.edu/ This tag must
    as close as possible to the opening tag.
    <!-- Moved to GTM 6/23/2020 TJS<script t
    ""; var a = axel * 10000000000000; docum
    src="https://ad.doubleclick.net/ddm/acti
    a + '?' width="1" height="1" alt="" styl
    src="https://ad.doubleclick.net/ddm/acti
    width="1" height="1" alt="" style="displ
    <!-- End of DoubleClick Floodlight Tag:
    <div aria-hidden="true" class="uw-search
    <a class="screen-reader-shortcut" href="
    content</a>
  <div id="uw-container">
    <nav aria-hidden="true" aria-label="qu
    <div id="uw-container-inner">
      <header class="uw-thinstrip" role="ba
      <nav aria-label="Main menu" id="dawgc
      <nav aria-label="mobile menu" class='
      </nav>
      <main id="main_content" tabindex="-1'
        <h1 class="offscreen">University Of
        <div aria-labelledby="slideshow-hee
        "region">
      <nav aria-label="popular links" cla
        <::before
        <ul class="center-block">
        <::after
      </nav>
      <div class="on-campus">
      <div class="uw-charts" style>
    </main>
    <div class="uw-footer" role="content:
    </div>
    <!-- #uw-container-inner -->
  </div>
<!-- #uw-container -->
```

element.style { }

.uw-links { style.css?5d6af5a:9
position: relative;
margin-top: -20px;
background-color: #fff;
~~webkit box shadow:~~
0 0 4px rgba(164,164,164,.5);
box-shadow: 0 0 4px rgba(164,164,164,.5); }

@media (min-width: 1200px) .container { style.css?ver=3.0.0:9
width: 1170px; }

@media (min-width: 992px) .container { style.css?ver=3.0.0:9
width: 970px; }

@media (min-width: 768px) .container { style.css?ver=3.0.0:9
width: 750px; }

.container { style.css?ver=3.0.0:9
margin-right: auto;
margin-left: auto;
padding-left: 15px;
padding-right: 15px; }

article, aside, details, figcaption, figure, footer, header, hgroup, main, nav, section, summary { style.css?ver=3.0.0:9
display: block; }

* { style.css?ver=3.0.0:9
line-height: inherit; }

* { style.css?ver=3.0.0:9
~~webkit box sizing: border-box;~~
~~moz-box-sizing: border-box;~~
box-sizing: border-box; }

nav { user agent stylesheet
~~display: block;~~ }

Inherited from body.home.blog.cms.site-ho...

body { style.css?ver=3.0.0:9



Brano in inglese: Themes overview

Welcome to the new world of themes in Moodle!

A Moodle theme allows the user to change the look and feel of a Moodle site. Themes can be applied on the site, category, course and activity levels by users with permissions to do so. Themes can be designed for specific devices such as mobile phones or tablets. This page explains how themes work in Moodle and is intended to help you create or modify most themes for Moodle.

You can use contributed themes or create your entire own to share with the community. Themes can also be based on parent themes with only few customizations. Themes accomplish this using CSS, changing the underlying markup structure and also adding Javascript to add more advanced behaviors.

Gruppo di quesiti Traccia C

Domanda 1)

A partire dalla tabella di seguito riportata, il candidato descriva la query SQL necessaria per impostare la password di iscrizione all'insegnamento uguale a "ultimo" per tutti gli enrol di tipo self (enrol=self)



Tabella: mdl_enrol

[Visualizza dati](#) [Visualizza struttura](#) [+ Modifica tabella](#) [+ Nuovo elemento](#)

Commento: Instances of enrolment plugins used in courses, fields marke

Colonna	Tipo	Commento
id	bigint(10) <i>Auto incremento</i>	
enrol	varchar(20) []	
status	bigint(10) [0]	
courseid	bigint(10)	
sortorder	bigint(10) [0]	
name	varchar(255) <i>NULL</i>	
enrolperiod	bigint(10) <i>NULL</i> [0]	
enrolstartdate	bigint(10) <i>NULL</i> [0]	
enrolenddate	bigint(10) <i>NULL</i> [0]	
expirynotify	tinyint(1) <i>NULL</i> [0]	
expirythreshold	bigint(10) <i>NULL</i> [0]	
notifyall	tinyint(1) <i>NULL</i> [0]	
password	varchar(50) <i>NULL</i>	
cost	varchar(20) <i>NULL</i>	
currency	varchar(3) <i>NULL</i>	
roleid	bigint(10) <i>NULL</i> [0]	
customint1	bigint(10) <i>NULL</i>	
customint2	bigint(10) <i>NULL</i>	
customint3	bigint(10) <i>NULL</i>	
customint4	bigint(10) <i>NULL</i>	
customint5	bigint(10) <i>NULL</i>	
customint6	bigint(10) <i>NULL</i>	
customint7	bigint(10) <i>NULL</i>	
customint8	bigint(10) <i>NULL</i>	
customchar1	varchar(255) <i>NULL</i>	
customchar2	varchar(255) <i>NULL</i>	
customchar3	varchar(1333) <i>NULL</i>	
customdec1	decimal(12,7) <i>NULL</i>	
customdec2	decimal(12,7) <i>NULL</i>	
customtext1	longtext <i>NULL</i>	
customtext2	longtext <i>NULL</i>	
customtext3	longtext <i>NULL</i>	
customtext4	longtext <i>NULL</i>	
timecreated	bigint(10) [0]	
timemodified	bigint(10) [0]	

Indici

PRIMARY	id
INDEX	enrol
INDEX	courseid
INDEX	roleid



Domanda 2)

A partire dalle schermate di seguito riportate, il candidato descriva le modifiche da apportare al codice CSS per impostare in rosso il colore del titolo h3 (“A ROMAN ADVENTURE”)





DevTools is now available in Italian!

Always match Chrome's language | Switch DevTools to Italian | Don't show again

Elements | Console | Sources | Network | Performance >>

```
<!DOCTYPE html>
<html class="no-js" lang="en">
  <head> </head>
  <!--[if lt IE 9]> <body class="home blog l
  <!--[if gt IE 8]><!-->
  <body class="home blog cms site-home">
    <!-- GTM Container placement set to auto
    <!-- Google Tag Manager (noscript) -->
    <noscript> </noscript>
    <!-- End Google Tag Manager (noscript) --
    <!--<![endif]>-->
    <!-- Start of DoubleClick Floodlight Tag
    IP156748 UW Homepage~IP156748 URL of the
    http://www.washington.edu/ This tag must
    as close as possible to the opening tag.
    <!-- Moved to GTM 6/23/2020 TJS<script t
    ""; var a = axel * 1000000000000; docum
    src="https://ad.doubleclick.net/ddm/acti
    a + "?" width="1" height="1" alt="" styl
    src="https://ad.doubleclick.net/ddm/acti
    width="1" height="1" alt="" style="displ
    <!-- End of DoubleClick Floodlight Tag;
    <div aria-hidden="true" class="uw-search
    <a class="screen-reader-shortcut" href="
    content</a>
  <div id="uw-container">
    <nav aria-hidden="true" aria-label="qu.
    <div id="uw-container-inner">
      <header class="uw-thinstrip" role="ba
      <nav aria-label="Main menu" id="dawg
      <nav aria-label="mobile menu" class='
      </nav>
      <main id="main_content" tabindex="-1'
      <h1 class="offscreen">University Of
      <div aria-labelledby="slideshow-hea
      "region">
        <h2 class="offscreen" id="slidesh
        <div class="uw-hero-image uw-home
        lide-order-3" data-id="25" style=
        est-2.amazonaws.com/wp-content/up
        olars-desktop-cropC.jpg&quot;) ce
        ay: none;"> </div>
        <div class="uw-hero-image uw-home
        ide-order-2" data-id="29" style="
        st-2.amazonaws.com/wp-content/upl
        desktop.jpg&quot;) center center
        </div>
        <div class="uw-hero-image uw-home
        lide-order-1" data-id="31" style=
        est-2.amazonaws.com/wp-content/up
        C.jpg&quot;) center center / cove
        </div>
        <div class="uw-hero-image uw-home
        lide-order-0" data-id="22" style=
        est-2.amazonaws.com/wp-content/up
        rlay2.jpg&quot;) center center /
        ::before
        <div class="mobile-image" style
        west-2.amazonaws.com/wp-content
        jpg'"></div>
        <div class="container hero-cont
        ::before
        <div class="hashtag"> </div>
        <div class="row">
          ::before
          <div class="col-md-8">
            <h3 class="slide-title" id
            <span class="udub-slant">(
            <p> </p>
            <p> </p>
            </div>
            ::after
            </div>
            ::after
            </div>
            ::after
            </div>
            <div class="slideshow-controls">
            </div>
            <nav aria-label="popular links" cla
```

Styles | Computed | Layout | Event Listeners >>

Filter | :hov .cls +, [, [

```
element.style {
}
.uw-homepage-slider-container style.css?5d6af5a:9
.lighttext.uw-homepage-slider
.hero-container h3 {
  color: #fff;
  text-shadow: 1px 1px 1px rgba(0,0,0,.3);
}
@media only screen and (min-width: 1401px)
.uw-homepage-slider-container style.css?5d6af5a:9
.uw-homepage-slider .hero-
container h3 {
  font-size: 50px;
  line-height: 50px;
  padding-right: 60px;
  margin: 60px 0 0;
}
.uw-homepage-slider-container style.css?5d6af5a:9
.uw-homepage-slider .hero-
container h3 {
  font-size: 50px;
  line-height: 50px;
  color: #4b2e83;
  font-weight: 900;
  text-transform: uppercase;
  padding-right: 60px;
  margin: 60px 0 0 0;
}
h3, .h3 { style.css?ver=3.0.0:9
  font-size: 23px;
}
h1, h2, h3 { style.css?ver=3.0.0:9
  margin-top: 29px;
  margin-bottom: 14.5px;
}
h1, h2, h3, h4, h5, h6, .h1, style.css?ver=3.0.0:9
.h2, .h3, .h4, .h5, .h6 {
  font-family: "Encode Sans Compressed", sans-serif;
  font-weight: 800;
  line-height: 1.3;
  color: inherit;
}
h3, .h3 { style.css?ver=3.0.0:9
  font-size: 23px;
}
h1, .h1, h2, .h2, h3, .h3 { style.css?ver=3.0.0:9
  margin-top: 29px;
  margin-bottom: 14.5px;
}
h1, h2, h3, h4, h5, h6, .h1, style.css?ver=3.0.0:9
.h2, .h3, .h4, .h5, .h6 {
  font-family: "Encode Sans Compressed", sans-serif;
  font-weight: 800;
  line-height: 1.3;
  color: inherit;
}
* { style.css?ver=3.0.0:9
  line-height: inherit;
}
* { style.css?ver=3.0.0:9
  -webkit-box-sizing: border-box;
  -moz-box-sizing: border-box;
  box-sizing: border-box;
}
h3 { style.css?ver=3.0.0:9
  display: block;
  font-size: 1.17em;
  margin-block-start: 1em;
  margin-block-end: 1em;
  margin-inline-start: 0px;
  margin-inline-end: 0px;
  font-weight: bold;
}
Inherited from div.uw-homepage-slider-con...
.uw-homepage-slider-container { style.css?5d6af5a:9
  position: relative;
  height: 450px;
  overflow: hidden;
  color: transparent;
}
Inherited from body.home.blog.cms.site-ho...
```

div.row | div.col-md-8 | h3#32 2-title.slide-title

Console | What's New | Issues

Highlights from the Chrome 117 update



Brano in inglese: Activity modules

Activity modules reside in the /mod directory.

Each module is in a separate subdirectory and consists of a number of 'mandatory files' and any other files the developer is going to use. The below image is an example of the certificate module's filestructure. Please note, any reference to <modname> in this documentation should be replaced by the name of your module.

There are several files that are crucial to Moodle. These files are used to install your module and then integrate it into the Moodle system. Each file has a particular function, some of the files are not necessary and are only created when wanting to use the functionality it offers.

Milano, 16 ottobre 2023

La Commissione

Dott. Fabio Carlo Reguzzoni Presidente

Dott. Angelo Calo' Componente

Dott.ssa Sara Ceglie Componente

Dott.ssa Giulia Marioni Segretario