



EDUCACIÓN
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TECNOLÓGICO
NACIONAL DE MÉXICO®



Tecnológico Nacional de México
Instituto Tecnológico de Tijuana

Departamento de Sistemas y Computación
Ingeniería en Sistemas Computacionales

Semestre:
Febrero - Junio 2022

Materia:
Innovación Tecnológicas

Docente:
JOSE CHRISTIAN ROMERO HERNANDEZ

Unidad:
U1

Título del trabajo:
práctica 3

alumno:
Manuel Angel Real Castro 18212253
Anahi Del Carmen Hernandez Pablo 18210486



1. Create a list called "list" with the elements "red", "white", "black"
2. Add 5 more items to "list" "green", "yellow", "blue", "orange", "pearl"
3. Bring the items from "list" "green", "yellow", "blue"
4. Create an array of numbers in the range 1-1000 in steps of 5 at a time
5. What are the unique elements of the list List(1,3,3,4,6,7,3,7) use conversion to sets
6. Create a mutable map named names containing the following
"Jose", 20, "Louis", 24, "Anna", 23, "Susana", 27"
6 a.m. Print all the keys on the map
6b. Add the following value to the map("Miguel", 23)

```
Símbolo del sistema - C:\Spark\spark-2.4.8-bin-hadoop2.7\bin\spark-shell
--
Using Spark's default log4j profile: org/apache/spark/log4j-defaults.properties
Setting default log level to "WARN".
To adjust logging level use sc.setLogLevel(newLevel). For SparkR, use setLogLevel(newLevel).
Spark context Web UI available at http://LAPTOP-AEC06GA0:4040
Spark context available as 'sc' (master = local[*], app id = local-1646888536959).
Spark session available as 'spark'.
Welcome to

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version 2.4.8

Using Scala version 2.11.12 (Java HotSpot(TM) 64-Bit Server VM, Java 1.8.0_162)
Type in expressions to have them evaluated.
Type :help for more information.

scala> var lista = List("rojo", "blanco", "negro")
lista: List[String] = List(rojo, blanco, negro)

scala> lista = "verde"::"amarillo"::"azul"::"naranja"::"perla"::lista
lista: List[String] = List(verde, amarillo, azul, naranja, perla, rojo, blanco, negro)

scala> lista: List[String] = List(verde, amarillo, azul, naranja, perla, rojo, blanco, negro)
<console>:1: error: ';' expected but '=' found.
lista: List[String] = List(verde, amarillo, azul, naranja, perla, rojo, blanco, negro)
^

scala> lista slice (0,3)
```

```
Símbolo del sistema - C:\Spark\spark-2.4.8-bin-hadoop2.7\bin\spark-shell
--
scala> lista slice (0,3)
res0: List[String] = List(verde, amarillo, azul)

scala> Array.range(1,1000,5)
res1: Array[Int] = Array(1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, 56, 61, 66, 71, 76, 81, 86, 91, 96, 101, 106, 111, 116, 121, 126, 131, 136, 141, 146, 151, 156, 161, 166, 171, 176, 181, 186, 191, 196, 201, 206, 211, 216, 221, 226, 231, 236, 241, 246, 251, 256, 261, 266, 271, 276, 281, 286, 291, 296, 301, 306, 311, 316, 321, 326, 331, 336, 341, 346, 351, 356, 361, 366, 371, 376, 381, 386, 391, 396, 401, 406, 411, 416, 421, 426, 431, 436, 441, 446, 451, 456, 461, 466, 471, 476, 481, 486, 491, 496, 501, 506, 511, 516, 521, 526, 531, 536, 541, 546, 551, 556, 561, 566, 571, 576, 581, 586, 591, 596, 601, 606, 611, 616, 621, 626, 631, 636, 641, 646, 651, 656, 661, 666, 671, 676, 681, 686, 691, 696, 701, 706, 711, 716, 721, 726, 731, 736, 741, 746, 751, 756, 761, 766, 771, 776, 781, 786, 791, ...)

scala> var lista2 = List(1,3,3,4,6,7,3,7)
lista2: List[Int] = List(1, 3, 3, 4, 6, 7, 3, 7)

scala> lista2.toSet
res2: scala.collection.immutable.Set[Int] = Set(1, 6, 7, 3, 4)

scala> scala.collection.immutable.Set[Int] = Set(1, 6, 7, 3, 4)
<console>:1: error: ';' expected but '=' found.
scala.collection.immutable.Set[Int] = Set(1, 6, 7, 3, 4)
^

scala> val nombres = collection.mutable.Map(("jose", 20), ("luis", 24), ("Ana", 23), ("Susana", 27))
nombres: scala.collection.mutable.Map[String,Int] = Map(Susana -> 27, Ana -> 23, luis -> 24, jose -> 20)

scala> nombres.keys
res3: Iterable[String] = Set(Susana, Ana, luis, jose)

scala> nombres+=("miguel"->23)
```



```
scala> nombres.keys  
res3: Iterable[String] = Set(Susana, Ana, luis, jose)  
  
scala> nombres+=("miguel"->23)  
res4: nombres.type = Map(Susana -> 27, Ana -> 23, miguel -> 23, luis -> 24, jose -> 20)  
  
scala>
```