|  |  |
| --- | --- |
| **Unit:** Language Basics | **Turn In List:** **1. This document** |
| *“I will understand and implement date/time features of my language.”* | |

**Title: It’s a Date**

**Content Objectives:** Students will properly use their language date/time features to make comparisons and calculations.

|  |
| --- |
| **Starter Activity** |
| How do you print the current full date and time in your language?  import java.util.Date;  class Main {  public static void main(String args[]) {  Date d= new Date();  System.out.println(d.toString());  }  } |

|  |
| --- |
| **Assignment:** |
| Students will use the following websites and internet searches to complete the table below:  Java: <http://www.tutorialspoint.com/java/java_date_time.htm> Note the use of millis!  C++: <http://www.tutorialspoint.com/cplusplus/cpp_date_time.htm>  Python: <http://www.tutorialspoint.com/python/python_date_time.htm>  C#: <https://msdn.microsoft.com/en-us/library/system.datetime.now(v=vs.110).aspx>  C++ and Python: note the use of a struct to handle individual elements of the date/time! |

|  |  |
| --- | --- |
| **Include Sample Code or Explanation for the following Concepts Below (copy and paste lines from editor)** | |
| Code to print current time only: | import java.util.\*;  import java.text.\*;  class Main {  public static void main(String args[]) {  Date dNow = new Date( );  SimpleDateFormat ft =  new SimpleDateFormat("H:m");  System.out.println(ft.format(dNow));  }  } |
| Code to print current date as: Day Month Year | import java.util.\*;  import java.text.\*;  class Main {  public static void main(String args[]) {  Date dNow = new Date( );  SimpleDateFormat ft =  new SimpleDateFormat("d M y");  System.out.println(ft.format(dNow));  }  } |
| Code to format date as: YYYY/MM/DD | import java.util.\*;  import java.text.\*;  class Main {  public static void main(String args[]) {  Date dNow = new Date( );  SimpleDateFormat ft =  new SimpleDateFormat("y/M/d");  System.out.println(ft.format(dNow));  }  } |
| Code to convert (cast)current date/time to string | import java.util.\*;  import java.text.\*;  class Main {  public static void main(String args[]) {  Date dNow = new Date();  DateFormat dateFormat = new SimpleDateFormat("yyyy/MM/dd HH:mm");  String strDate = dateFormat.format(dNow);  System.out.println(strDate);  }  } |

Psuedocode an app that asks for the user’s birthdate and calculates the age in millenniums, centuries, decades, years, months, days, hours, minutes, seconds.

|  |
| --- |
|  |

Code the app that calculates the above psuedocode (note: depending on your language, you may need to ask for day, month and year separately and set each value to a global variable…) Consider adding functionality to ask for two dates and calculate the difference between them.

|  |
| --- |
|  |