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| **Date Assigned: 1/29/16** | **Date Due: 2/2/16** |
| **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.

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| **Starter Activity** |
| import java.util.Date;  public class Test{  public static void main(String[] args){  Date date = new Date();  System.out.println(date.toString());  }  } |

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| **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! |

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| **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.Scanner;  import java.util.Calendar;  import java.text.SimpleDateFormat;  import java.util.Date;  public class Test{  public static void main(String[] args){  Date tNow = new Date();  SimpleDateFormat ft =  new SimpleDateFormat ("HH:mm:ss:SS");    System.out.println("Current Time in hours, minutes, seconds, and milliseconds is: " + ft.format(tNow) + " EST");  }  } |
| Code to print current date as: Day Month Year | import java.util.Scanner;  import java.util.Calendar;  import java.text.SimpleDateFormat;  import java.util.Date;  public class Test{  public static void main(String[] args){  Date tNow = new Date();  SimpleDateFormat ft =  new SimpleDateFormat ("dd.MM.yy");    System.out.println("Current date is: " + ft.format(tNow));  }  } |
| Code to format date as: YYYY/MM/DD | import java.util.Scanner;  import java.util.Calendar;  import java.text.SimpleDateFormat;  import java.util.Date;  public class Test{  public static void main(String[] args){  Date tNow = new Date();  SimpleDateFormat ft =  new SimpleDateFormat ("yyyy.MM.dd");    System.out.println("Current date is: " + ft.format(tNow));  }  } |
| Code to convert (cast)current date/time to string |  |

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

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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.

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