**IT Pathways**

**Unit 2 Outcome 1**

**Nagle College, 2012**

**Case Study**

David is a journalist working for an online communication technology eMagazine. The magazine is published online and aimed at technology savvy industry persons. His main interest is in mobile phones. He has spent the last 2 weeks researching and writing an article about the market distribution of the main phone manufacturers.

His social interactions with people and the popular media had led him to think that Apple, with the iPhone, had most of the market share. He has been able to acquire 2 tables of data from the Gartner Research Group. From this data he has conclude that whilst Apple hold a sizable chunk of the smartphone market they are really only a small player in the overall mobile phones sales. Further to this, the new Android operated smartphones have been adopted by the market place at an astounding rate and number.

David has asked you to create 2 data visualisations, the he can use with his article, to support his findings.

Table 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Worldwide Mobile Device Sales to End Users by Vendor in 1Q12 (Thousands of Units)** | | | | |
| **Company** | **1Q12** | **1Q12 Market Share (%)** | **1Q11** | **1Q11 Market Share (%)** |
| **Units** | **Units** |
| Samsung | 86,567.60 | 20.7 | 68,782.00 | 16.1 |
| Nokia | 83,162.50 | 19.8 | 107,556.10 | 25.1 |
| Apple | 33,120.50 | 7.9 | 16,883.20 | 3.9 |
| ZTE | 17,439.30 | 4.2 | 10,788.70 | 2.5 |
| LG | 14,720.40 | 3.5 | 23,997.20 | 5.6 |
| Huawei Device | 10,796.10 | 2.6 | 7,002.90 | 1.6 |
| Research in Motion | 9,939.30 | 2.4 | 13,004.00 | 3 |
| Motorola | 8,368.20 | 2 | 8,789.70 | 2.1 |
| Sony Mobile Communications | 7,898.40 | 1.9 | 7,919.40 | 1.9 |
| HTC | 7,703.40 | 1.8 | 9,313.50 | 2.2 |
| Others | 139,392.60 | 33.3 | 153,809.00 | 35.9 |
| **Total** | **419,108.30** | **100** | **427,845.70** | **100** |
| Source: Gartner (May 2012) | | | | |
| http://www.gartner.com/it/page.jsp?id=2017015 | | | | |

Table 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Worldwide Mobile Communications Device Open OS Sales to End Users by OS (Thousands of Units)** | | | | |
| **OS** | **2010** | **2011** | **2012** | **2015** |
| Symbian | 111,577 | 89,930 | 32,666 | 661 |
| Market Share (%) | 37.6 | 19.2 | 5.2 | 0.1 |
| Android | 67,225 | 179,873 | 310,088 | 539,318 |
| Market Share (%) | 22.7 | 38.5 | 49.2 | 48.8 |
| Research In Motion | 47,452 | 62,600 | 79,335 | 122,864 |
| Market Share (%) | 16 | 13.4 | 12.6 | 11.1 |
| iOS | 46,598 | 90,560 | 118,848 | 189,924 |
| Market Share (%) | 15.7 | 19.4 | 18.9 | 17.2 |
| Microsoft | 12,378 | 26,346 | 68,156 | 215,998 |
| Market Share (%) | 4.2 | 5.6 | 10.8 | 19.5 |
| Other Operating Systems | 11,417.40 | 18,392.30 | 21,383.70 | 36,133.90 |
| Market Share (%) | 3.8 | 3.9 | 3.4 | 3.3 |
| **Total Market** | **296,647** | **467,701** | **630,476** | **1,104,898** |
| Source: Gartner (April 2011) | | | | |
| http://www.gartner.com/it/page.jsp?id=1622614 | | | | |

Duration: 3 x 80min sessions

Resources: classroom computers with loaded software, internet and any web 2.0 apps you have access to.

**Steps**

1. Analysis
   1. The factors that influence the problem.
      1. How will the visualisation be communicated?
      2. What form will it take?
   2. What are the needs of the data visualisation user.
      1. What is the age of the audience?
      2. What is the education of the user?
      3. How much money do they earn?
      4. What gender are they?
   3. Data
      1. What data has been collected?
      2. What is the quality of the data?
      3. Select and identify the required data?
2. Design
   1. Using flowcharts, storyboards, layout diagrams design/sketch the data visualisation.
   2. Outline what software you require to produce the visualisation.
   3. Identify what formats and conventions you will/have used in your solution.
   4. Identify what test data you need.
3. Development
   1. Create the visualisation.
   2. Test your visualisation.
      1. Test the clarity.
      2. Test for completeness.
      3. Test for accuracy.
      4. Test for overall communication of message.
4. Evaluation
   1. Show your visualisation to one person, outside this class, and gain their feedback on your work. Did they get it? Why? Why not?
   2. Discuss the likely impact on the ability of the user to make decisions based on how information is communicated through the data visualisation. *(Will they get it?)* For instance, what decisions might the user be able to make after viewing this data visualisation? *(Hypothesise about who the user might be and why they may be reading your visualisation)*