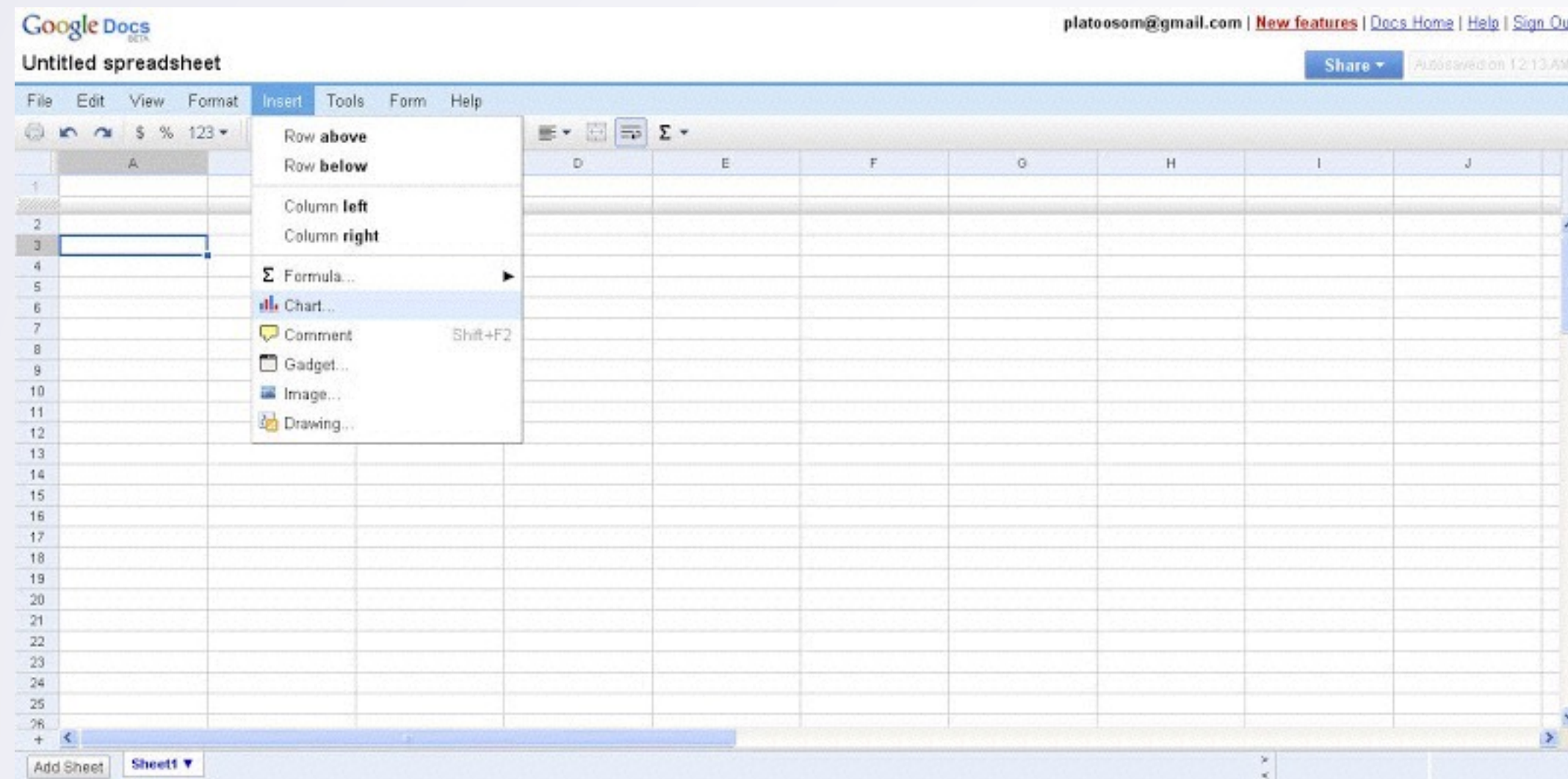


CSV Data

Comma Separated Values

Tabular Data: Common and Useful



www.select2web.com

```
C11 (L) TOTAL C1
25
A B C D
ITEM NO. UNIT COST
MUCK 43 12.95 556.85
RAKE 15 6.75 101.25
BUZZ CUT 250 49.95 12487.50
TONER 2 4.95 9.90
EYE SNUFF
SUBTOTAL 13155.50
9.75% TAX 1282.66
TOTAL 14438.16
```

- Tabular (row/column) format data: write code!
 - Spreadsheets revolutionized and started new industries: <http://n.pr/1Ov78vS>
 - Data frequently made accessible to public
 - CSV files: Comma separated values

Programming with CSV Files

- Spreadsheets extremely useful: visualizing, finding information, trends, much more
- Data in CSV format can be portable between different spreadsheet programs



Programming with CSV Files

- Spreadsheets extremely useful: visualizing, finding information, trends, much more
- Data in CSV format can be portable between different spreadsheet programs
- Common formats have **standards**
 - IETF RFC 4180: Comma Separated Values (CSV)
 - ISO/IEC 29500: Open Office XML
- Use existing library: Apache CSVParser
 - Programming solves new kinds of problems!