BUSINESS ANALYTICS

DASHBAORDS

- Dashboards allow a user to focus on the most important aspect of a system using principles of visualization and data modelling.

- Who is the dashboard audience? What are their expectations?

- Well designed dashboards can quickly show the user a quick snapshot of their data and built to allow them to drill down into the detail.

DASHBOARDS

- Creating a good dashboard is both an art and a science.

- Dashboard provides focused information in a visually appealing way.

- Reports are usually tables of data, good for looking at individual figures.

- Dashboards use key performance indicators KPI$_s$

- Often used for monitoring performance

DASHBOARDS - BENEFITS

- Reduce the time spent deciphering and analyzing the data, more time understanding how business is performing, thus quicker decision making

- Focus on areas that need further analysis

DASHBOARDS - REQUIREMENTS

- What are the most important questions that the dashboard should answer along with any corresponding KPI's

- Is the data readily available

- Construct key message suitable for audience with consideration for their technical skills

DASHBOARD - TYPES

- Three primary types of dashboards:

  - **Executive:** high level, summary format, long time horizon to communicate organisational trends. General managers, ceo, other core executive positions. They help to provide live insights into the business. Help to identify how and where the executive should focus their time. Also used to communicate corporate performance.

  - **Analytical:** typically more detailed, used to facilitate further ad hoc analysis. Used to explore datasets that may be difficult to review at the line item level.

  - **Operational:** shorter time frames to focus on specific operating goals. Frequently used to measure output and other KPI's.

DASHBOARDS – DESIGN PRINCIPLES

- **Balance and proportions:** distribution of the visual weight of the object's colour, texture, and space.

- **Emphasis:** how to bring attention to what is most important or what should be read first.

- **Repetition and consistency:** use of similar elements for unity and consistency across a dashboard. Helps to make each component feel connected and ensures the reader remains focused on the message instead of individual elements.

- **Hierarchy:** helps the reader understand the hierarchy of objects, thus reinforcing the message of the dashboard.

- **Functionality:** functional requirements the dashboard must meet, i.e. the needs of the audience, e.g. drill down capabilities.

DASHBOARDS

The five design principles should be considered together, they should be given due respect and should be integrated so that no one principal dominates.
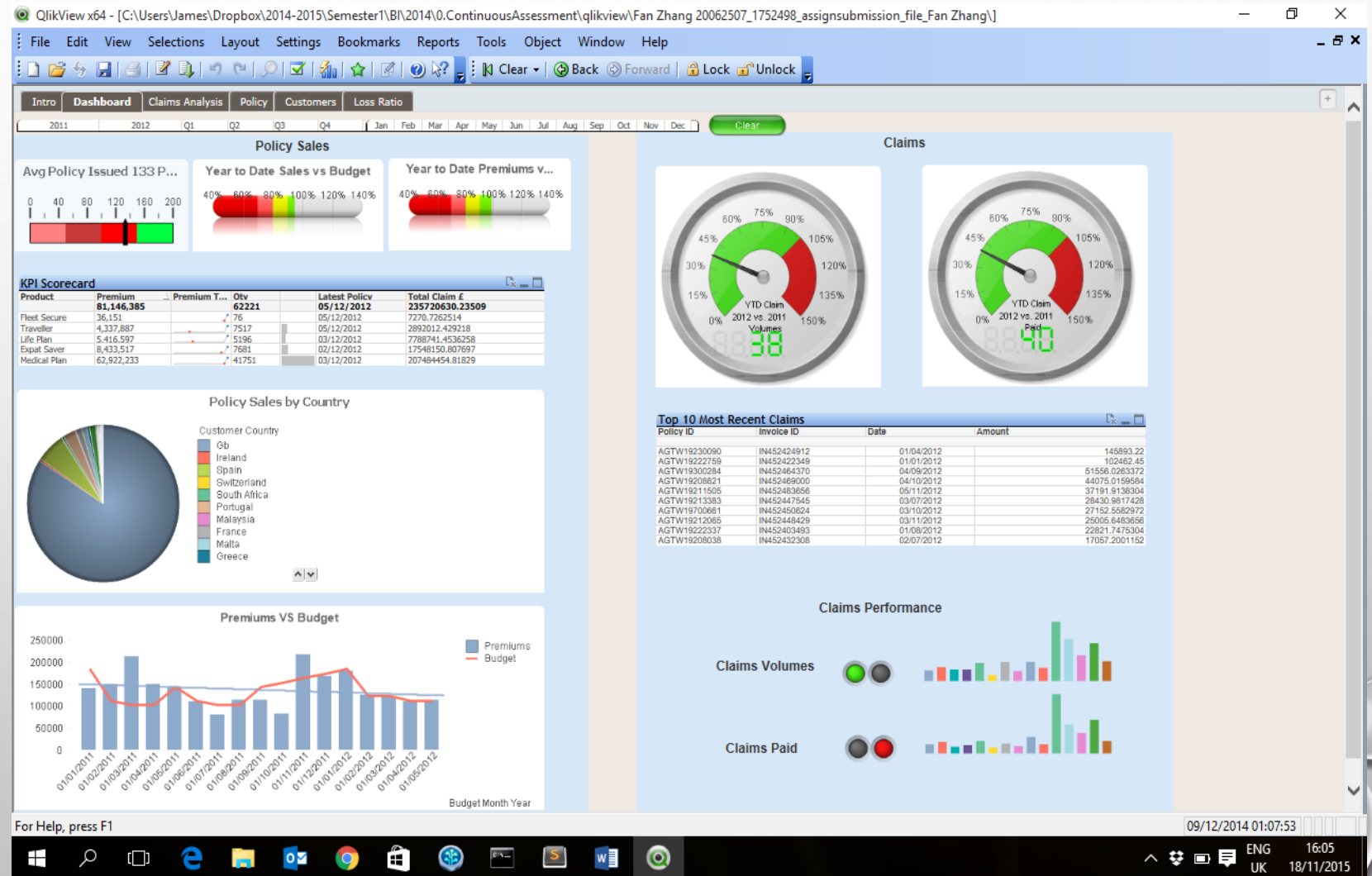
Example of a bad dashboard:
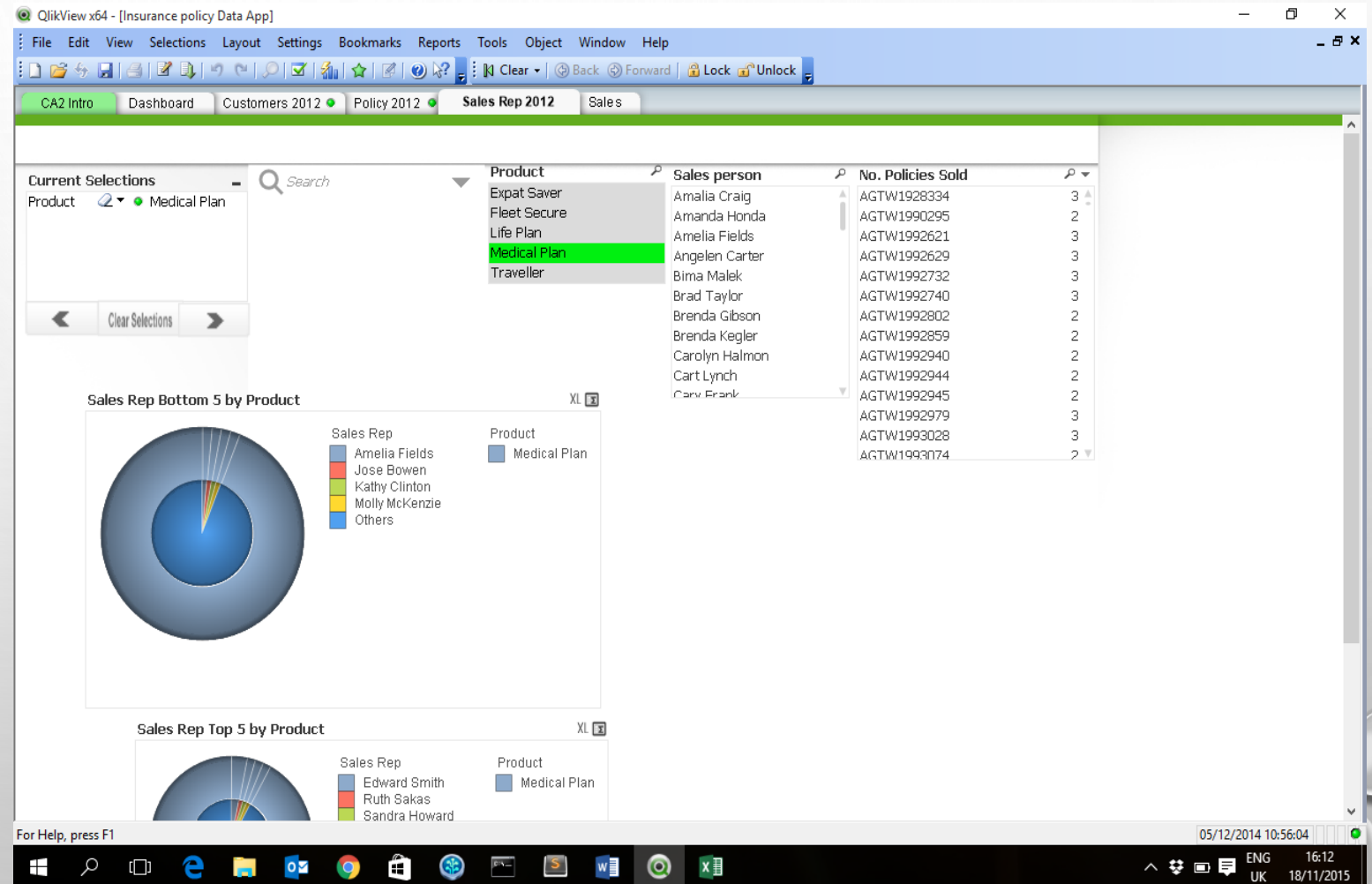
DASHBOARDS

Example of a good dashboard:

DASHBOARDS

- Important to think about each component.

- Ensuring the message is prominently displayed by putting it the highest priority position.

- Each component should serve a purpose and add to or clarify the message.

- Unactionable information (junk) should be included very sparingly.

- Consider the maintenance and updates for the dashboard. Build in flexibility for growth.

- Refresh rate should be considered, use a timestamp so users know how old the data is.

SOFTWARE

- https://www.predictiveanalyticstoday.com/open-source-dashboard-software/

- https://www.scoro.com/blog/best-kpi-dashboard-software-tools-reviewed/