Use cases for Big Data

1. Investing
   1. Spot the profit deals (Top down analysis – Country -> State -> Suburb -> Street)
   2. Popular products with in an area.
   3. Future Appreciation by type of product (homes, apartments, block of apartments, town houses, land, etc.)
   4. Cash flow forecast (6month, 1 year, 3 year etc.) based on various expenses (), budgeting, timeline for return on investment.
   5. Future Tenants requirements (Property attributes – such as @BHK units, family room, granny flat etc.)
   6. Market Trends (market cycles, change in demography, change in infrastructure)
   7. Statistical information such as – people demography, soppy vs demand, crime rates, school quality, traffic condition, facilities
   8. Risk Management (hedging for interest rate risk, FX), insurance
2. Better Communities
   1. Tracking the quality of air, traffic, energy use …
3. Building Management
   1. Identify the issues
   2. Speeding up repairs
   3. Slashing expenses
4. Real Estate Agents (buyers and sellers)
   1. Housing Trends
   2. Demographics
   3. Crime Data
   4. School Quality
   5. Changing Demand
   6. Optimal Agency Fee
5. Lenders & Banks
   1. Increase lending – Auto top-up’s, equity release
   2. Risk management – predict the future deprecision
   3. Loan Retention
   4. Market Risk
   5. Cross sell products – insurance, deprecision schedules, financial planning etc.)
   6. Competitive interest rates offering based on suburb, client profile, etc.
6. Commercial space
   1. Office location based on employee commute
   2. Optimal Cost

Predict the future home price:

1. House selling price
2. Predict based on social media tagged on geo graphic info.

Step 1:

1. Predicate the current price:

SOURCE:

1. Property sale price:

<http://www.valuergeneral.nsw.gov.au/services/sales-enquiry.htm?execution=e1s14>

To predict the home price:

Key features/attributes are:

1. **Property Attributes**
   1. **Land Size**
   2. **Building size**
   3. **No.of Bed Rooms**
   4. **No.of Bath rooms**
   5. **Year of Construction**
   6. **Swimming pool**
   7. **Flooring**
   8. **Renovation**
   9. **Type of Property (Apartment / Home / Serviced apartment)**
   10. **Age**
2. **Location Attributes**
   1. **Facilities**
   2. **Proximity to Schools, Station, park, CBD, Beach**
3. **Market condition**
   1. **Interest Rates**
   2. **Inflation**
   3. **Employment**
4. **Demography**
   1. **Age**
   2. **Ethinic Grp**
   3. **Income Range**
   4. **Disposable income**
5. **Population**
   1. **Per capita**
   2. **Immigration**
6. **Regulations**
   1. **First home buyers grant**
   2. **Lending Restrictions**
   3. **Tax**
7. **Demand and Supply**
   1. **No.of Properties available for Sale**
   2. **No.of Properties sold**
   3. **Auction clearance Rate**
   4. **Private sales vs auctions sold**
   5. **No.of days in market**