* **Policy**: A policy is a formal contract between the insurer and the policyholder .This contract define the terms and conditions of the coverage, including what risks are covered, the coverage limits, exclusions, the premium and the duration of the coverage**.**

**Example:** property Insurance Policy

**Policyholder:** John Doe  
**Insurer:** XYZ Insurance Company  
**Policy Number:** 123-456-789

what is covered in the policy

What are the perils Covered

Additional Coverage Options

Policy Limits

Co-payment

Claims Process, Premiums and Policy Term

* **Location:** **location** refers to the physical address or the specific place where the insured property is situated. location is a critical factor in determining the **coverage**, **premium**, and **risk assessment** for the property being insured. Different locations carry different levels of risk for certain types of losses and this will influence both the cost of the policy and the types of coverage offered.

**Example:** If you own a **home in Florida** (a state with a high risk of hurricanes), your property insurance will likely include coverage for hurricane damage. However, if you live in **Nebraska**, where hurricanes are less common, your policy might not need to account for that risk, and your premium might be lower.

Additionally, if you're insuring **an apartment in a downtown area** (with a higher risk of theft), the insurer might factor in the higher likelihood of property crimes compared to a home in a more suburban or rural area.

Overall, location is one of the most important aspects in determining both the cost and the details of property insurance coverage, as it directly impacts the level of risk involved.

* **Premium**: **Premium** is the amount of money the policyholder must pay to the insurance company to maintain their coverage. This payment can be made in a lump sum or through periodic payments, such as monthly, quarterly, or annually. The premium is essentially the cost of purchasing insurance protection for your property.
* **Claim :** A **claim** is a formal request made by the policyholder to the insurance company for compensation for his loss occurs. Essentially, when damage, or destruction happens to your insured property, you file a claim to receive financial reimbursement or to have the insurer cover the cost of repairs or replacement according to the terms of your policy.

**Example:** **Storm Damage**: A hailstorm damages your roof. After filing a claim, the insurance company agrees to cover the cost of the roof repair, minus your deductible.

* **Deductible:** A **deductible** is the amount of money you, the policyholder, must pay out-of-pocket before the insurance company begins to pay for a covered loss or damage. Essentially, it's the portion of the claim that policyholder is responsible for, while the insurance company covers the rest (up to the policy limits).

The deductible applies to each claim you make, and it is subtracted from the total claim amount before the insurer pays out. The higher your deductible, the lower your premium (the cost of your insurance)

**Choosing a Deductible:**

When selecting a deductible, consider:

**Your Financial Situation:** If you can afford a higher deductible, you might opt for one to lower your premium. However, if paying a larger amount out-of-pocket in case of damage would be financially difficult, a lower deductible might be more suitable.

**Risk Tolerance:** If you live in an area prone to frequent claims (like frequent storms or wildfires), you may want a lower deductible to avoid high costs during a claim.

* **Excess point:** refers to the amount of loss or damage that the policyholder must cover out of pocket before the insurance policy begins to pay out for a claim. It is similar to a **deductible**

Here’s how it works:

1. If there’s damage to your property, the excess point represents the threshold or minimum amount that you, the policyholder, must pay in the event of a claim.
2. Once the damage or loss exceeds that excess amount, the insurance company will cover the remaining cost, up to the policy’s limits.

* **Total Insured Value :**

The total insured value (TIV) refers to the total amount of coverage that an insurance policy provides for a property. This value represents the maximum amount the insurance company will pay out in the event of a covered loss or damage, such as destruction or other qualifying incidents.

The total insured value is based on the replacement cost of the property, meaning it covers the cost to replace or repair the property (or its contents) to the same condition it was before the loss, up to the policy limits.

**Total Insured Value vs. Market Value**:\*\*\*

It's important to note that the market value of a property is different from the total insured value. The market value is what the property could be sold for on the open market, while the total insured value is the cost to replace or repair the property, which may be higher than the market value, especially in areas with rising construction costs.

* **Total Replacement Value:**

Total Replacement Value refers to the amount it would cost to replace or repair the insured property with a new equivalent at current market prices, without considering depreciation. This means that, in the event of a covered loss, the insurance policy will pay for the full cost to rebuild or replace the property or its contents to the same condition it was before the loss, minus the deductible.

* **Coverage**: coverage refers to the types of protection and the amount of financial compensation your insurance policy provides in the event of a covered loss or damage to your property. It outlines what is included and what is excluded from the policy, determining how much the insurance company will pay for specific types of damage
* **Insured Limit**:

The insured limit (also known as the coverage limit) refers to the maximum amount of money an insurance company will pay out for a covered loss or claim under a specific type of coverage in your policy. The insured limit represents the cap or limit of liability on the amount the insurer is obligated to pay for a claim. Once the insured limit is reached, the policyholder would be responsible for any remaining costs.

* **Blanket/Site Deductible**:

Blanket Deductibles and Site Deductibles are two ways insurance companies structure how much a policyholder must pay out-of-pocket before the insurer begins covering claims. The blanket deductible applies to multiple properties or risks under one policy, offering flexibility and simplicity, while the site deductible applies individually to each property or location, ensuring that each site is treated separately in terms of coverage. Understanding the structure of your deductible is important in choosing the right policy and ensuring you are prepared for potential claims.

* **Sublimit**:

A sublimit in property insurance is a specific cap or limit placed on certain types of coverage, such as high-value items (e.g., jewelry, electronics), specific perils (e.g., flood, earthquake), or risks (e.g., theft, vandalism). It’s important to understand the sublimits in your policy, as they dictate how much coverage is available for particular risks or items. If the sublimits are too low for your needs, you can often adjust the policy by adding specific endorsements or riders to ensure that your valuable property is fully covered.

**Personal Lines** and **Commercial Lines** refer to two broad categories of insurance policies, each designed for different types of insurance needs. The primary difference between the two is who or what is being insured: **individuals** and their personal assets (Personal Lines) versus **businesses and organizations** (Commercial Lines).

1. This refers to insurance policies designed for individuals and families to cover their personal property, liability, and other personal needs.

Aims to provide protection for personal assets and liabilities, including homes, cars, personal belongings, and family needs.

1. This refers to insurance policies designed for businesses, organizations, or commercial entities to protect against risks related to business operations.

Aims to protect businesses from risks related to their operations, such as property damage, employee injuries, lawsuits, or business interruptions.

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What Are Exposure Data?

* Exposure data are all the information elements used to describe what is re/insured, how it is  
  re/insured, where it is located, and how much it is worth. These are all critical pieces of  
  information required to assess one’s exposure to and loss potential from a catastrophic event. In addition, the exposure data also include site hazard data such as topography, soil type and  
  elevation, and geocoding results.
* Exposure data can be stored in many formats such as spreadsheets, digital flat files, and  
  databases. For users of RiskLink, the exposure data is contained in the exposure data module  
  (EDM)
* Understanding your exposure data is the first step to catastrophe risk management
* The data throughout the cycle should understand the ultimate end goal for that data so they can make appropriate decisions where necessary throughout the process.  
  It is important to make sure the data acquired are not only of sufficient quality for the type of  
  analysis that will be done, but also that they are the best quality possible given business  
  constraints.
* There are two rules of exposure data analysis

1. **Understand your end goal and end user**
2. **Analyze data with a “fitness for purpose” framework.**

In order to apply this rule 1it is helpful to consider a few key questions

▪ What do you want or need to do with the exposure information or the modeled results?  
▪ How can you most efficiently analyze the information to achieve your goal?  
▪ Who will be using these data once they are analyzed?

these questions *before* you invest significant time and effort setting up your data .

Ignoring this rule may result in re-analysis, which can cost a significant amount of  
time and effort.

Example:

ABC Insurance Company writes large commercial policies with policy-level limits  
that cover locations across Florida in the United States (i.e. blanket limits). The company wishes  
to understand its aggregates by postal code in the coastal counties to make sure they have not  
exceeded their capacity.

They have asked you to compile a report to help them with the analysis.

▪ What are the company underwriting guidelines? Is there a maximum limit per postal code in  
 the coastal counties? If there are postal codes over this limit, it could mean that the limits  
 are not being captured properly or that underwriters are not adhering to the underwriting  
 guidelines.  
▪ What is the resolution of the data? If the data were captured and/or geocoded to a coarser  
 resolution than postal code (e.g. county), then not all the data will be able to be captured  
 and analyzed at the necessary level for reporting, and the resulting analysis may be  
 inaccurate.  
▪ Are the data complete? The data must include all policies in force in order to get an accurate  
 assessment of the postal code-level aggregates.

▪ What parameters need to be aggregated? Is the company just looking for total insured  
 values by postal code, or is it total insured values by line of business and by construction  
 type as well?  
▪ What financial structures are in place? The fact that you have blanket limits that may cover  
 locations in multiple counties means that you will have to determine how much limit exists in  
 any given postal code for monitoring aggregates.

**Rule #2: Analyze data within a “fitness for purpose” framework.**

The second rule means that the analysis type should be appropriate to achieve the goals and  
objectives set out by the end user.  
Exposure data analysis requirements are not uniform between:  
▪ Perils  
▪ Regions  
▪ Market Segments (Line of Business)

Peril models use different data resolutions depending upon the resolution of the model, the level  
of hazard in the region, and the market segment or line of business being analysed.

Example

A peril model with a high hazard gradient (i.e. the hazard varies greatly within small  
areas), such as river flood, requires high resolution data to most accurately determine the  
exposure to this peril. By contrast, European windstorms generally have low damage over wide  
areas, and therefore, a coarser resolution of geocoding would be perfectly acceptable for  
analyzing the exposure to this peril.

In western region of the United States. If running an earthquake analysis in  
California, it is important to note that the soil types change rapidly over short distances in the  
western half of the state, but in the eastern half, the soils are more uniform. With this in mind,  
having only postal code level data available for locations in the eastern half of California may be  
acceptable for certain types of analyses. In the western half of the state, however, detailed  
location information becomes very important in order correctly assess the site hazards.

In addition, the type of information being analyzed will be different for residential vs. commercial  
lines of business. A single family home located in a flood-exposed area will be at risk of flooding  
regardless of the number of stories. However, a commercial risk in the same zone may not be  
exposed to flooding at all if the insured is located above the first floor of the building. In this  
example, having accurate information on the number of stories and the floors occupied is  
important information to accurately assess flood exposure.

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**Catastrophic (Cat) Perils** refer to severe natural events or phenomena that can cause widespread damage to property, infrastructure, and human life. These perils are typically associated with extreme weather events, seismic activity, and environmental disasters. In the context of insurance, **Cat Perils** often include high-risk events that require special coverage due to their unpredictability and the significant damage they can cause.

Below is an overview of some specific Cat Perils and how they cause damage:

**Hurricane:**

* **Damage**: Hurricanes are powerful tropical storms with high winds, heavy rainfall, and storm surges. They can cause significant flooding, wind damage, and coastal erosion.
* **How It Causes Damage**:
  + **Wind**: Can destroy buildings, uproot trees, and knock down power lines.
  + **Storm Surge**: A rise in sea level can flood coastal areas, submerging buildings, infrastructure, and causing significant water damage.
  + **Precipitation Flooding**: Heavy rainfall causes flooding, especially in low-lying areas.

### ****Earthquake****:

* **Damage**: Earthquakes are sudden, violent shaking of the ground caused by tectonic movement.
* **How It Causes Damage**:
  + **Ground Shaking**: Causes buildings and structures to collapse, cracks in foundations, and can lead to fires or gas leaks.
  + **Landslide / Liquefaction**: Earthquakes can trigger landslides or cause soil to lose its strength (liquefaction), which leads to buildings sinking or shifting.

### ****Severe Convective Storm (Thunderstorm)****:

* **Damage**: Thunderstorms can include lightning, hail, strong winds, and heavy rain, each of which can cause different types of damage.
* **How It Causes Damage**:
  + **Hail**: Hailstones can damage roofs, windows, vehicles, crops, and other property.
  + **Wind**: Strong winds can uproot trees, damage roofs, and bring down power lines.
  + **Flooding**: Heavy rain can result in flash floods, damaging homes and infrastructure.

### ****Winter Storm****:

* **Damage**: Winter storms can involve snow, ice, freezing rain, and low temperatures.
* **How It Causes Damage**:
  + **Wind**: Wind associated with winter storms can cause damage to structures, bring down trees, and power lines.
  + **Freeze**: Frozen pipes can burst, leading to significant water damage inside homes and businesses.
  + **Snow Load**: Accumulation of heavy snow on rooftops can cause roofs to collapse.

### ****Wildfire****:

* **Damage**: Wildfires are uncontrolled fires that spread quickly across dry vegetation and land.
* **How It Causes Damage**: Wildfires can destroy homes, forests, wildlife, and crops, leaving behind charred landscapes. Smoke from wildfires can also have significant health impacts.

### ****Flood (Inundation)****:

* **Damage**: Flooding occurs when water overflows from its normal boundaries, often due to heavy rainfall, storms, or snowmelt.
* **How It Causes Damage**:
  + **Fluvial Flooding**: River or stream flooding occurs when water levels exceed the banks, flooding surrounding areas.
  + **Pluvial Flooding**: Occurs when heavy rainfall overwhelms drainage systems, leading to surface flooding in urban areas.