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## TRAINING DATA GENERATOR FOR AI KNOWLEDGE RETRIEVAL AGENT

Creates realistic insurance policy documents and test cases

This generates:

1. Policy document chunks (simulating real insurance policies)
2. Test cases for various claim scenarios
3. Expected retrieval results for validation

.....

```
import json
from typing import List, Dict
from dataclasses import dataclass, asdict
```

```
@dataclass
```

```
class PolicyDocument:
```

```
    """Represents a policy document section."""
    document_name: str
```

```
    version: str
```

```
    section_id: str
```

```
    page_number: int
```

```
    paragraph_number: int
```

```
    title: str
```

```
    content: str
```

```
    effective_date: str
```

```
    tags: List[str]
```

```
    jurisdiction: str = "All States"
```

```
@dataclass
```

```
class TestCase:
```

```
    """Represents a test claim case."""
    case_id: str
```

```
claim_type: str
state: str
policy_type: str
claim_amount: float
description: str
special_flags: List[str]
expected_policy_sections: List[str] # Section IDs that should be retrieved
expected_outcome: str # "approve", "deny", "needs_review"

# =====
# INSURANCE POLICY DOCUMENTS - COMPREHENSIVE DATASET
# =====

HOMEOWNERS_POLICY_SECTIONS = [
    PolicyDocument(
        document_name="Homeowners_Insurance_Policy",
        version="2025.1",
        section_id="1.1",
        page_number=3,
        paragraph_number=1,
        title="Coverage A - Dwelling",
        content="""Coverage A provides protection for the dwelling structure on your property. This includes the house and any attached structures such as garages or porches. Coverage extends to fixtures, permanently installed equipment, and materials on the premises used for construction or repair of the dwelling. Maximum coverage limit is the amount stated in your declarations page. Replacement cost coverage is provided unless actual cash value is selected.""",
        effective_date="2025-01-01",
        tags=["homeowners", "dwelling", "coverage", "structure", "replacement cost"],
        jurisdiction="All States"
    ),
    PolicyDocument(
        document_name="Homeowners_Insurance_Policy",
        version="2025.1",
        section_id="1.2",
        page_number=3,
        paragraph_number=1,
        title="Coverage B - Personal Property",
        content="""Coverage B provides protection for personal property owned by the insured. This includes household items, clothing, and other possessions. Coverage extends to fixtures, permanently installed equipment, and materials on the premises used for construction or repair of the dwelling. Maximum coverage limit is the amount stated in your declarations page. Replacement cost coverage is provided unless actual cash value is selected.""",
        effective_date="2025-01-01",
        tags=["homeowners", "dwelling", "coverage", "structure", "replacement cost"],
        jurisdiction="All States"
    )
]
```

```
page_number=4,  
paragraph_number=1,  
title="Coverage B - Other Structures",  
content=""""\nCoverage B protects structures on your property that are not attached to the main dwelling. This includes detached garages, sheds, fences, swimming pools, and guest houses. Coverage is typically 10% of Coverage A limit unless otherwise specified. The structure must be used primarily for residential purposes and not for business activities. Structures used for business require separate commercial coverage.""""  
effective_date="2025-01-01",  
tags=["homeowners", "detached", "structures", "garage", "shed"],  
jurisdiction="All States"  
,
```

```
PolicyDocument(  
    document_name="Homeowners_Insurance_Policy",  
    version="2025.1",  
    section_id="2.1",  
    page_number=8,  
    paragraph_number=3,  
    title="Water Damage Exclusions",  
    content=""""\nThis policy does NOT cover damage caused by: (a) flood, surface water, waves, tidal water, overflow of any body of water, or spray from any of these, (b) water below the ground surface pressing on or flowing through foundations, walls, floors or basement areas, (c) water which backs up through sewers or drains, or (d) water damage to swimming pools, hot tubs, or saunas unless caused by sudden and accidental discharge from plumbing systems. Separate flood insurance is required for flood coverage.""""  
    effective_date="2025-01-01",  
    tags=["water damage", "exclusion", "flood", "basement", "sewer backup"],  
    jurisdiction="All States"  
,
```

```
PolicyDocument(  
    document_name="Homeowners_Insurance_Policy",  
    version="2025.1",  
    section_id="3.4",  
    page_number=15,  
    paragraph_number=2,  
    title="Fire and Smoke Damage Coverage",
```

content="""Coverage includes direct physical loss to covered property from fire or smoke. This includes: (a) damage from hostile fires (unintended fires outside proper receptacles), (b) smoke damage from sudden and accidental events, (c) costs for fire department service charges up to \$500, and (d) reasonable costs to protect property from further damage. Friendly fires (intentional fires in fireplaces or stoves) are only covered if they escape their intended containment. Evidence of arson or intentional fire-setting will void coverage and may result in criminal investigation.""";

effective\_date="2025-01-01",  
tags=["fire", "smoke", "arson", "damage", "coverage"],  
jurisdiction="All States"  
,

PolicyDocument(

document\_name="Homeowners\_Insurance\_Policy",  
version="2025.1",  
section\_id="4.1",  
page\_number=22,  
paragraph\_number=1,  
title="Personal Property Coverage",

content="""Coverage C protects your personal belongings anywhere in the world. Standard coverage is 50-70% of Coverage A limit. Covered items include furniture, clothing, electronics, appliances, and other personal possessions. Special limits apply to: jewelry (\$1,500), firearms (\$2,500), silverware (\$2,500), and business property (\$2,500). High-value items require scheduled coverage through endorsements. Off-premises coverage is limited to 10% of Coverage C unless items are being moved to a new residence.""";

effective\_date="2025-01-01",  
tags=["personal property", "belongings", "jewelry", "electronics", "furniture"],  
jurisdiction="All States"  
,

PolicyDocument(

document\_name="Homeowners\_Insurance\_Policy",  
version="2025.1",  
section\_id="5.2",  
page\_number=31,  
paragraph\_number=4,  
title="Liability Coverage",

content="""Coverage E provides liability protection if you are legally responsible for bodily injury or property damage to others. Standard coverage is \$100,000 to \$500,000 per occurrence. This covers: (a) injuries to guests on your property, (b) damage you cause to others' property, (c) legal defense costs, and (d) court judgments against

you. Exclusions include: intentional acts, business activities, vehicle accidents (covered by auto insurance), and professional services. Medical payments to others are covered up to \$1,000-\$5,000 per person regardless of fault.""""

```
effective_date="2025-01-01",
tags=["liability", "bodily injury", "property damage", "legal defense", "medical payments"],
jurisdiction="All States"
),
]
```

AUTO\_POLICY\_SECTIONS = [

```
PolicyDocument(
    document_name="Auto_Insurance_Policy",
    version="2025.2",
    section_id="A.1",
    page_number=5,
    paragraph_number=1,
    title="Collision Coverage",
    content="""Collision coverage pays for damage to your vehicle caused by collision with another vehicle or object, or by rollover. This applies regardless of fault. Coverage includes: (a) repair costs up to actual cash value of vehicle, (b) towing and storage fees up to $150, and (c) rental car reimbursement if purchased. Deductibles typically range from $250 to $2,500. Lower deductibles result in higher premiums. Collision coverage is required by lenders for financed vehicles. Total loss threshold varies by state but is typically 70-75% of vehicle value.""""
,
```

```
effective_date="2025-01-01",
tags=["auto", "collision", "accident", "repair", "total loss"],
jurisdiction="All States"
),
```

```
PolicyDocument(
    document_name="Auto_Insurance_Policy",
    version="2025.2",
    section_id="A.2",
    page_number=7,
    paragraph_number=2,
    title="Comprehensive Coverage",
    content="""Comprehensive coverage protects against non-collision damage including: (a) theft or vandalism, (b) fire or explosion, (c) natural disasters (hail, flood, hurricane, tornado), (d) falling objects, (e) damage from animals, and (f) glass breakage. Windshield replacement often has no deductible or reduced deductible. Acts of nature are
```

covered except earthquake in non-earthquake zones. Comprehensive claims typically do not affect premiums as severely as collision claims. Evidence of vehicle recovery after theft may require inspection before coverage resumes.""""

```
effective_date="2025-01-01",
tags=["auto", "comprehensive", "theft", "vandalism", "natural disaster", "windshield"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="Auto_Insurance_Policy",
```

```
version="2025.2",
```

```
section_id="B.1",
```

```
page_number=12,
```

```
paragraph_number=1,
```

```
title="Liability Coverage Requirements",
```

content=""""Bodily Injury Liability covers injuries you cause to others. Property Damage Liability covers damage to others' property. Minimum state requirements vary: California requires 15/30/5 (\$15k per person, \$30k per accident, \$5k property), Florida requires 10/20/10, Texas requires 30/60/25, New York requires 25/50/10. Higher limits (100/300/100 or more) are strongly recommended. Umbrella policies provide additional coverage beyond auto policy limits. Liability does not cover your own injuries or vehicle damage - that requires collision/comprehensive coverage.""""

```
effective_date="2025-01-01",
```

```
tags=["auto", "liability", "bodily injury", "property damage", "state requirements"],
```

```
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="Auto_Insurance_Policy",
```

```
version="2025.2",
```

```
section_id="C.3",
```

```
page_number=19,
```

```
paragraph_number=3,
```

```
title="Uninsured/Underinsured Motorist Coverage",
```

content=""""UM/UIM coverage protects you when hit by a driver with no insurance or insufficient coverage. This covers: (a) your medical expenses, (b) lost wages, (c) pain and suffering, and (d) vehicle damage in some states. Required in some states, optional in others. Recommended coverage matches your liability limits. Hit-and-run accidents are typically covered under uninsured motorist provisions. Some states allow rejection of this coverage in

writing, but it is highly inadvisable given the high percentage of uninsured drivers (13% nationally, higher in some states).""",

```
effective_date="2025-01-01",
tags=["auto", "uninsured motorist", "underinsured", "hit and run", "medical expenses"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="Auto_Insurance_Policy",
```

```
version="2025.2",
```

```
section_id="D.1",
```

```
page_number=24,
```

```
paragraph_number=2,
```

```
title="Total Loss Valuation",
```

content=""""When repair costs exceed 70-80% of vehicle's actual cash value (ACV), vehicle is declared a total loss. ACV is calculated as replacement cost minus depreciation based on age, mileage, and condition. Valuation sources include NADA, Kelley Blue Book, and local market comparisons. Gap insurance covers difference between ACV and loan balance. Sales tax and title fees are typically included in settlement. Salvage retention: if you keep the totaled vehicle, salvage value is deducted from settlement. Total loss disputes can be resolved through appraisal process outlined in policy.""""

```
effective_date="2025-01-01",
```

```
tags=["auto", "total loss", "ACV", "valuation", "gap insurance"],
```

```
jurisdiction="All States"
```

```
),
```

```
]
```

FLOOD\_POLICY\_SECTIONS = [

PolicyDocument(

```
document_name="National_Flood_Insurance_Policy",
```

```
version="2024.3",
```

```
section_id="F.1",
```

```
page_number=8,
```

```
paragraph_number=1,
```

```
title="Flood Coverage - Building Property",
```

content=""""Building coverage protects the structure and its foundation. Covered items include: (a) electrical and plumbing systems, (b) central air conditioning, (c) furnaces and water heaters, (d) built-in appliances, (e) permanently installed carpeting, and (f) elevators. Maximum coverage: \$250,000 for residential buildings, \$500,000

for non-residential. Basements have limited coverage - only includes structural elements and essential equipment. Finished basement improvements (drywall, flooring, furniture) are NOT covered. Coverage applies to direct physical loss by flood as defined by NFIP guidelines.""""

```
effective_date="2024-01-01",
tags=["flood", "building", "structure", "NFIP", "basement exclusion"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="National_Flood_Insurance_Policy",
version="2024.3",
section_id="F.2",
page_number=11,
paragraph_number=3,
title="Flood Coverage - Personal Property",
```

content=""""Contents coverage protects personal belongings inside the insured building. Maximum coverage: \$100,000 for residential, \$500,000 for non-residential. Covered items include furniture, clothing, electronics, portable appliances, and removable carpeting. NOT covered: vehicles, currency, valuable papers (except \$2,500 limit), and property stored in basements except clothes washers/dryers, food freezers, and portable air conditioners. Contents in detached garages limited to 10% of contents coverage or \$10,000, whichever is less. Separate contents policy required for renters.""""

```
effective_date="2024-01-01",
tags=["flood", "contents", "personal property", "belongings", "basement"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="National_Flood_Insurance_Policy",
version="2024.3",
section_id="F.3",
page_number=15,
paragraph_number=2,
title="Basement Definition and Limitations",
```

content=""""NFIP defines basement as any area with floor below ground level on all sides. This includes: crawl spaces, sunken rooms, and walk-out basements. Extremely limited coverage for basements includes only: (a) structural components and foundation, (b) stairways and staircases, (c) electrical, plumbing, and HVAC systems, (d) water heaters and fuel tanks. NOT covered in basements: finished walls, floors, ceilings, personal property (except

specifically listed items), and any improvement or betterment beyond essential structure. This limitation cannot be waived or modified through endorsements.""""

```
effective_date="2024-01-01",
tags=["flood", "basement", "exclusion", "limitation", "definition"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="National_Flood_Insurance_Policy",
version="2024.3",
section_id="F.4",
page_number=22,
paragraph_number=1,
```

title="Waiting Period and Effective Date",

content=""""Standard 30-day waiting period applies from purchase date before coverage begins. Exceptions: (a) initial purchase concurrent with mortgage closing (no waiting period), (b) renewal policies (no waiting period if no lapse), (c) map revisions making property newly mandatory (30-day wait from map effective date). During waiting period, NO coverage exists for any flood event. Continuous coverage is critical - even one day lapse reinstates 30-day waiting period. Special provisions may apply during declared disaster periods but only if policy purchased before event.""""

```
effective_date="2024-01-01",
tags=["flood", "waiting period", "effective date", "coverage start"],
jurisdiction="All States"
),
```

]

WORKERS\_COMP\_SECTIONS = [

PolicyDocument(

```
document_name="Workers_Compensation_Policy",
version="2025.1",
section_id="W.1",
page_number=4,
paragraph_number=1,
title="Medical Benefits Coverage",
```

content=""""Workers compensation provides unlimited medical benefits for work-related injuries. Coverage includes: (a) doctor visits and hospital care, (b) surgery and prescription medications, (c) physical therapy and rehabilitation, (d) medical equipment and prosthetics, and (e) travel expenses to medical appointments. No

deductibles or co-pays for injured workers. Employee must use approved providers in some states. Pre-authorization may be required for non-emergency procedures. Medical treatment must be reasonable and necessary for work-related injury or illness.""""

```
effective_date="2025-01-01",
tags=["workers comp", "medical", "injury", "treatment", "benefits"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="Workers_Compensation_Policy",
version="2025.1",
section_id="W.2",
page_number=9,
paragraph_number=2,
title="Temporary Disability Benefits",
```

content=""""Temporary Total Disability (TTD): Paid when employee cannot work at all due to injury. Typically 66.67% of average weekly wage, subject to state maximums. Maximum duration varies by state (104 weeks common). Temporary Partial Disability (TPD): Paid when employee can return to light duty at reduced hours/wages. Payment is 66.67% of wage difference. Waiting periods apply (typically 3-7 days). If disability exceeds 14 days, waiting period is retroactively paid. Benefits continue until: maximum medical improvement, return to full duty, or maximum duration reached.""""

```
effective_date="2025-01-01",
tags=["workers comp", "disability", "wage replacement", "TTD", "benefits"],
jurisdiction="All States"
),
```

PolicyDocument(

```
document_name="Workers_Compensation_Policy",
version="2025.1",
section_id="W.3",
page_number=15,
paragraph_number=1,
title="Fraud Indicators and Investigation",
```

content=""""Suspected fraud must be reported to insurance carrier and state fraud bureau. Common indicators include: (a) injury reported on Monday for weekend incident, (b) no witnesses to incident, (c) inconsistent descriptions of how injury occurred, (d) treatment delays or gaps, (e) history of multiple claims, (f) claimant observed performing activities inconsistent with claimed restrictions, (g) employment termination immediately before claim. Surveillance and medical examinations may be conducted. Proven fraud can result in: claim denial, criminal

prosecution, restitution orders, and imprisonment. Employers should document all safety violations and pre-existing conditions.""""

```
    effective_date="2025-01-01",
    tags=["workers comp", "fraud", "investigation", "surveillance", "indicators"],
    jurisdiction="All States"
),
]
```

```
# =====
```

```
# STATE-SPECIFIC REGULATIONS
```

```
# =====
```

```
STATE_REGULATIONS = [
```

```
    PolicyDocument(
        document_name="Florida_Insurance_Regulations",
        version="2024.2",
        section_id="FL.1",
        page_number=103,
        paragraph_number=4,
        title="Florida Flood Claim Processing Requirements",
        content="""Florida Statute 627.70132 requires flood insurance claims be processed within 90 days of receiving complete documentation. Insurers must: (a) acknowledge claim within 14 days, (b) begin investigation within 30 days, (c) provide claim decision within 90 days of complete documentation, (d) provide daily updates if deadline cannot be met. Penalties for non-compliance: $500 per day after deadline, potential license suspension, and bad faith claims exposure. Complete documentation means all items on documented checklist provided to policyholder. Hurricane-related extensions may apply during declared states of emergency.""""
```

```
        effective_date="2024-06-01",
        tags=["florida", "flood", "regulation", "processing time", "compliance", "deadline"],
        jurisdiction="Florida"
),
```

```
    PolicyDocument(
```

```
        document_name="California_Insurance_Code",
        version="2024.5",
        section_id="CA.1",
        page_number=87,
```

```
paragraph_number=2,  
title="California Earthquake Coverage Requirements",  
content="""California law requires all residential property insurers to offer earthquake coverage (Insurance Code §10081). Homeowners may reject coverage in writing. Standard homeowners policies exclude earthquake damage. California Earthquake Authority (CEA) is the primary provider. Coverage specifics: deductibles typically 10-25% of dwelling coverage, minimum $5,000 deductible, additional living expenses limited to $100,000, contents and personal property covered separately. Earthquake must cause direct physical damage - non-structural damage may not be covered. Claims must be filed within one year of earthquake occurrence."",  
effective_date="2024-01-15",  
tags=["california", "earthquake", "CEA", "coverage", "deductible", "requirement"],  
jurisdiction="California"  
,
```

```
PolicyDocument(  
document_name="Texas_Insurance_Code",  
version="2024.3",  
section_id="TX.1",  
page_number=156,  
paragraph_number=3,  
title="Texas Windstorm and Hail Coverage",  
content="""Texas coastal areas may require windstorm and hail coverage through Texas Windstorm Insurance Association (TWIA). Coverage territory: coastal counties designated by TWIA. Standard policies may exclude wind and hail in these zones. TWIA coverage limits: up to $1.9 million for residential structures. Deductibles: hurricane deductibles are percentage-based (usually 2-5% of Coverage A), separate from standard deductibles. All windstorm deductibles apply per hurricane season, not per occurrence. Hurricane deductible triggers when National Weather Service declares hurricane or tropical storm within 75 miles of property."",  
effective_date="2024-03-01",  
tags=["texas", "windstorm", "hurricane", "hail", "TWIA", "coastal"],  
jurisdiction="Texas"  
,
```

```
PolicyDocument(  
document_name="New_York_Insurance_Law",  
version="2024.4",  
section_id="NY.1",  
page_number=92,  
paragraph_number=1,  
title="New York No-Fault Auto Insurance",
```

content="""New York requires no-fault auto insurance (PIP - Personal Injury Protection). Minimum coverage: \$50,000 per person for medical expenses, lost wages, and other economic losses regardless of fault. Benefits include: (a) medical treatment up to \$50,000, (b) 80% of lost earnings up to \$2,000/month for 3 years, (c) up to \$25/day for other reasonable expenses. No-fault applies to: owner, operator, passengers, and pedestrians struck by vehicle. Serious injury threshold must be met to sue outside no-fault system. Serious injury defined as: death, dismemberment, significant disfigurement, fracture, permanent limitation of function, or significant limitation for 90+ days."""",

```
effective_date="2024-02-01",
tags=["new york", "auto", "no-fault", "PIP", "medical", "requirements"],
jurisdiction="New York"
),
]
```

```
# =====
```

```
# TEST CASES - REALISTIC CLAIM SCENARIOS
```

```
# =====
```

```
TEST_CASES = [
```

```
TestCase(
    case_id="TC-001-FL-FLOOD-BASEMENT",
    claim_type="Flood",
    state="Florida",
    policy_type="Homeowners with Flood",
    claim_amount=180000.0,
    description="Single-family home experienced severe flooding during Hurricane Ian. Customer reports 4 feet of water in basement, damaging finished basement rec room, home theater system, furniture, and destroying HVAC system. Customer requesting full replacement of basement including finished walls, flooring, entertainment center, pool table, and wine collection. Property is in Zone AE (high flood risk). Policy effective date: 6 months ago.",
    special_flags=["basement_damage", "hurricane", "high_value_contents"],
    expected_policy_sections=["F.1", "F.3", "FL.1"],
    expected_outcome="partial_approve"
),
```

```
TestCase(
    case_id="TC-002-CA-FIRE",
    claim_type="Fire",
    state="California",
```

```
policy_type="Homeowners",
claim_amount=450000.0,
description="Total loss of single-family home due to wildfire. Customer evacuated safely but structure is completely destroyed. Requesting full replacement cost for dwelling ($450k), contents ($150k), and additional living expenses for temporary housing. Fire department confirmed wildfire origin, no evidence of homeowner negligence. Customer has replacement cost coverage on dwelling. Adjacent properties also destroyed.",
special_flags=["total_loss", "wildfire", "replacement_cost"],
expected_policy_sections=["1.1", "3.4", "4.1"],
expected_outcome="approve"
),
```

TestCase(

```
case_id="TC-003-TX-AUTO-TOTAL",
claim_type="Auto",
state="Texas",
policy_type="Auto - Full Coverage",
claim_amount=35000.0,
description="2022 Toyota Camry involved in multi-vehicle accident on I-35. Customer not at fault (rear-ended at stoplight). Vehicle sustained severe rear-end damage, frame bent, airbags deployed. Repair estimate: $28,000. Vehicle value: $32,000. Customer owes $38,000 on car loan. Requesting total loss settlement and gap coverage. Other driver has minimum liability coverage (30/60/25).",
special_flags=["total_loss", "not_at_fault", "gap_insurance"],
expected_policy_sections=["D.1", "A.1", "B.1"],
expected_outcome="approve"
),
```

TestCase(

```
case_id="TC-004-NY-AUTO-NOFAULT",
claim_type="Auto",
state="New York",
policy_type="Auto - Liability Only",
claim_amount=75000.0,
description="Pedestrian struck by customer's vehicle in crosswalk. Pedestrian sustained broken leg, facial injuries, and concussion. Pedestrian claiming $75,000 in medical expenses, lost wages, and pain/suffering. Customer admits fault - was distracted by cell phone. Police report confirms customer ran red light. Customer has minimum liability coverage (25/50/10). Pedestrian attorney threatening lawsuit for serious injury.",
special_flags=["pedestrian_injury", "serious_injury", "lawsuit_threat", "customer_at_fault"],
```

```
expected_policy_sections=["B.1", "NY.1"]  
expected_outcome="needs_review"  
)
```

```
TestCase(  
    case_id="TC-005-FL-WORKERSCOMP-FRAUD",  
    claim_type="Workers Compensation",  
    state="Florida",  
    policy_type="Workers Comp",  
    claim_amount=50000.0,  
    description="Employee claims back injury from lifting boxes on Monday morning. No witnesses to incident.  
    Employee reported injury 3 days later. Employee has history of 2 prior workers comp claims at different employers.  
    Social media shows employee playing basketball over weekend. Surveillance video shows employee carrying heavy  
    furniture into home day after reported injury. Employee requesting permanent disability rating. Doctor reports  
    conflicting restrictions. Employee was facing disciplinary action for attendance issues.",  
    special_flags=["fraud_suspected", "surveillance_evidence", "inconsistent_statements", "prior_claims"],  
    expected_policy_sections=["W.1", "W.2", "W.3"],  
    expected_outcome="deny"
```

```
TestCase(  
    case_id="TC-006-CA-EARTHQUAKE",  
    claim_type="Earthquake",  
    state="California",  
    policy_type="Homeowners with Earthquake",  
    claim_amount=125000.0,  
    description="6.2 magnitude earthquake caused foundation cracks, chimney collapse, and interior structural  
    damage. Customer has CEA earthquake coverage with 15% deductible ($75k). Requesting full repair costs estimated  
    at $125,000. Structural engineer report confirms earthquake damage. No prior foundation issues noted in inspection  
    reports. Customer purchased earthquake coverage 2 years ago. Some damage appears cosmetic while other damage  
    affects structural integrity.",  
    special_flags=["earthquake", "structural_damage", "high_deductible"],  
    expected_policy_sections=["CA.1", "1.1"],  
    expected_outcome="approve"  
)
```

TestCase(

```
case_id="TC-007-TX-WINDSTORM",
claim_type="Windstorm",
state="Texas",
policy_type="Homeowners with TWIA",
claim_amount=95000.0,
description="Category 3 hurricane caused roof damage, broken windows, and water intrusion. Property is in TWIA territory (Galveston County). Customer has $300k dwelling coverage with 3% hurricane deductible ($9k). Roof sustained significant damage with multiple sections torn off. Interior water damage to 3 bedrooms, living room, and hallway. Temporary roof tarp installed. Customer requesting emergency repairs authorization and full claim settlement. Hurricane declared 60 miles from property.",
special_flags=["hurricane", "roof_damage", "water_intrusion", "emergency_repairs"],
expected_policy_sections=["TX.1", "1.1", "3.4"],
expected_outcome="approve"
),
```

```
TestCase(
case_id="TC-008-FL-AUTO-UNINSURED",
claim_type="Auto",
state="Florida",
policy_type="Auto - Full Coverage",
claim_amount=45000.0,
description="Customer hit by uninsured driver running red light. Customer sustained neck and back injuries requiring 6 months physical therapy. Vehicle totaled (value $25k). Medical expenses: $18k. Lost wages: $12k. Customer has uninsured motorist coverage with 100/300/50 limits. Police report confirms other driver at fault and had no insurance. Hit-and-run driver never found. Customer requesting UM coverage for medical, lost wages, and vehicle damage.",
special_flags=["uninsured_motorist", "bodily_injury", "total_loss", "hit_and_run"],
expected_policy_sections=["C.3", "D.1", "B.1"],
expected_outcome="approve"
),
```

```
# =====
```

```
# DATA EXPORT FUNCTIONS
```

```
# =====
```

```
def create_full_dataset():
```

```

"""Create complete dataset combining all policy sections and test cases."""
all_policies = (
    HOMEOWNERS_POLICY_SECTIONS +
    AUTO_POLICY_SECTIONS +
    FLOOD_POLICY_SECTIONS +
    WORKERS_COMP_SECTIONS +
    STATE_REGULATIONS
)
return {
    "policy_documents": [asdict(doc) for doc in all_policies],
    "test_cases": [asdict(tc) for tc in TEST_CASES],
    "metadata": {
        "total_documents": len(all_policies),
        "total_test_cases": len(TEST_CASES),
        "document_types": {
            "homeowners": len(HOMEOWNERS_POLICY_SECTIONS),
            "auto": len(AUTO_POLICY_SECTIONS),
            "flood": len(FLOOD_POLICY_SECTIONS),
            "workers_comp": len(WORKERS_COMP_SECTIONS),
            "state_regulations": len(STATE_REGULATIONS)
        },
        "states_covered": ["Florida", "California", "Texas", "New York", "All States"]
    }
}
}

def save_dataset_to_file(filename="insurance_training_data.json"):
    """Save dataset to JSON file."""
    dataset = create_full_dataset()
    with open(filename, 'w', encoding='utf-8') as f:
        json.dump(dataset, f, indent=2, ensure_ascii=False)
    print(f"✓ Dataset saved to {filename}")
    print(f"  {dataset['metadata']['total_documents']} policy documents")

```

```
print(f" {dataset['metadata']['total_test_cases']} test cases")  
return filename
```

```
def load_dataset_from_file(filename="insurance_training_data.json"):  
    """Load dataset from JSON file."""  
    with open(filename, 'r', encoding='utf-8') as f:  
        dataset = json.load(f)  
    print(f"✓ Loaded dataset from {filename}")  
    return dataset
```

```
def print_dataset_summary():  
    """Print summary of training data."""  
    dataset = create_full_dataset()
```

```
print("\n" + "="*80)  
print(" INSURANCE TRAINING DATASET SUMMARY")  
print("="*80)
```

```
print(f"\n POLICY DOCUMENTS:
```