

Appendix: Sample Data for AI Agent Intern Assignment

I. Initial Testing Data (Force Learning)

File 1: invoices_extracted.json (Initial)

```
[
  {
    "invoiceId": "INV-A-001",
    "vendor": "Supplier GmbH",
    "fields": {
      "invoiceNumber": "INV-2024-001",
      "invoiceDate": "12.01.2024",
      "serviceDate": null,
      "currency": "EUR",
      "netTotal": 2500.0,
      "taxRate": 0.19,
      "taxTotal": 475.0,
      "grossTotal": 2975.0,
      "lineItems": [{ "sku": "WIDGET-001", "qty": 100, "unitPrice": 25.0 }]
    },
    "confidence": 0.78,
    "rawText": "Rechnungsnr: INV-2024-001\nLeistungsdatum: 01.01.2024"
  },
  {
    "invoiceId": "INV-A-002",
    "vendor": "Supplier GmbH",
    "fields": {
```

```
"invoiceNumber": "INV-2024-002",
"invoiceDate": "18.01.2024",
"serviceDate": null,
"currency": "EUR",
"netTotal": 1000.0,
"taxRate": 0.19,
"taxTotal": 190.0,
"grossTotal": 1190.0,
"lineItems": [{ "sku": "WIDGET-001", "qty": 40, "unitPrice": 25.0 }]
},
"confidence": 0.82,
"rawText": "Rechnungsnr: INV-2024-002\nLeistungsdatum: 15.01.2024"
},
{
  "invoiceId": "INV-B-001",
  "vendor": "Parts AG",
  "fields": {
    "invoiceNumber": "PA-7781",
    "invoiceDate": "05-02-2024",
    "currency": "EUR",
    "netTotal": 2000.0,
    "taxRate": 0.19,
    "taxTotal": 400.0,
    "grossTotal": 2400.0,
    "lineItems": [{ "sku": "BOLT-99", "qty": 200, "unitPrice": 10.0 }]
  },
}
```

```
"confidence": 0.74,
"rawText": "VAT already included in total"
},
{
  "invoiceId": "INV-B-002",
  "vendor": "Parts AG",
  "fields": {
    "invoiceNumber": "PA-7799",
    "invoiceDate": "20-02-2024",
    "currency": "EUR",
    "netTotal": 1500.0,
    "taxRate": 0.19,
    "taxTotal": 285.0,
    "grossTotal": 1785.0,
    "lineItems": [{ "sku": "BOLT-99", "qty": 150, "unitPrice": 10.0 }]
  },
  "confidence": 0.86,
  "rawText": "Prices incl. VAT"
},
{
  "invoiceId": "INV-C-001",
  "vendor": "Freight & Co",
  "fields": {
    "invoiceNumber": "FC-1001",
    "invoiceDate": "01.03.2024",
    "currency": "EUR",
```

```
"netTotal": 980.0,
"taxRate": 0.19,
"taxTotal": 186.2,
"grossTotal": 1166.2,
"lineItems": [{ "description": "Transport charges", "qty": 1, "unitPrice": 1000.0 }]
},
"confidence": 0.79,
"rawText": "2% Skonto if paid within 10 days"
}
]
```

File 2: reference_data.json

```
{
  "purchaseOrders": [
    {
      "poNumber": "PO-A-050",
      "vendor": "Supplier GmbH",
      "date": "2024-01-05",
      "lineItems": [{ "sku": "WIDGET-001", "qty": 100, "unitPrice": 25.0 }]
    }
  ],
  "deliveryNotes": [
    {
      "dnNumber": "DN-A-123",
      "vendor": "Supplier GmbH",
      "poNumber": "PO-A-050",
```

```
    "lineItems": [{ "sku": "WIDGET-001", "qtyDelivered": 95 }]
  }
]
}
```

File 3: human_corrections.json (Initial)

```
[
  {
    "invoiceId": "INV-A-001",
    "vendor": "Supplier GmbH",
    "corrections": [
      {
        "field": "serviceDate",
        "from": null,
        "to": "2024-01-01",
        "reason": "Leistungsdatum found in raw text"
      }
    ],
    "finalDecision": "approved"
  },
  {
    "invoiceId": "INV-B-001",
    "vendor": "Parts AG",
    "corrections": [
      {
        "field": "taxTotal",
        "from": 400.0,
```

```
    "to": 380.0,  
    "reason": "VAT included in total; recalculated"  
  }  
],  
  "finalDecision": "approved"  
}  
]
```

II. Full Sample Dataset (12 Invoices)

1. Full invoices_extracted.json

```
[  
  {  
    "invoiceId": "INV-A-001",  
    "vendor": "Supplier GmbH",  
    "fields": {  
      "invoiceNumber": "INV-2024-001",  
      "invoiceDate": "12.01.2024",  
      "serviceDate": null,  
      "currency": "EUR",  
      "poNumber": "PO-A-050",  
      "netTotal": 2500.0,  
      "taxRate": 0.19,  
      "taxTotal": 475.0,  
      "grossTotal": 2975.0,  
      "lineItems": [  
        { "sku": "WIDGET-001", "description": "Widget", "qty": 100, "unitPrice": 25.0 }  
      ]  
    }  
  }  
]
```

```
    },
    "confidence": 0.78,
    "rawText": "Rechnungsnr: INV-2024-001\nLeistungsdatum: 01.01.2024\nBestellnr: PO-A-050\n..."
  },
  {
    "invoiceId": "INV-A-002",
    "vendor": "Supplier GmbH",
    "fields": {
      "invoiceNumber": "INV-2024-002",
      "invoiceDate": "18.01.2024",
      "serviceDate": null,
      "currency": "EUR",
      "poNumber": "PO-A-050",
      "netTotal": 2375.0,
      "taxRate": 0.19,
      "taxTotal": 451.25,
      "grossTotal": 2826.25,
      "lineItems": [
        { "sku": "WIDGET-001", "description": "Widget", "qty": 95, "unitPrice": 25.0 }
      ]
    },
    "confidence": 0.72,
    "rawText": "Rechnungsnr: INV-2024-002\nLeistungsdatum: 15.01.2024\nBestellnr: PO-A-050\nHinweis: Teillieferung\n..."
  },
```

```
{
  "invoiceId": "INV-A-003",
  "vendor": "Supplier GmbH",
  "fields": {
    "invoiceNumber": "INV-2024-003",
    "invoiceDate": "25.01.2024",
    "serviceDate": null,
    "currency": "EUR",
    "poNumber": null,
    "netTotal": 500.0,
    "taxRate": 0.19,
    "taxTotal": 95.0,
    "grossTotal": 595.0,
    "lineItems": [
      { "sku": "WIDGET-002", "description": "Widget Pro", "qty": 20, "unitPrice": 25.0 }
    ]
  },
  "confidence": 0.69,
  "rawText": "Rechnungsnr: INV-2024-003\nLeistungsdatum: 20.01.2024\nBestellung: (keine Angabe)\nReferenz: Lieferung Januar\n...",
},
{
  "invoiceId": "INV-A-004",
  "vendor": "Supplier GmbH",
  "fields": {
    "invoiceNumber": "INV-2024-003",
```



```
"invoiceDate": "26.01.2024",
"serviceDate": null,
"currency": "EUR",
"poNumber": null,
"netTotal": 500.0,
"taxRate": 0.19,
"taxTotal": 95.0,
"grossTotal": 595.0,
"lineItems": [
  { "sku": "WIDGET-002", "description": "Widget Pro", "qty": 20, "unitPrice": 25.0 }
],
"confidence": 0.63,
"rawText": "Rechnungsnr: INV-2024-003\nLeistungsdatum: 20.01.2024\nHinweis:
erneute Zusendung\n...",
{
  "invoiceId": "INV-B-001",
  "vendor": "Parts AG",
  "fields": {
    "invoiceNumber": "PA-7781",
    "invoiceDate": "05-02-2024",
    "currency": "EUR",
    "poNumber": "PO-B-110",
    "netTotal": 2000.0,
    "taxRate": 0.19,
```

```
"taxTotal": 400.0,

"grossTotal": 2400.0,

"lineItems": [

  { "sku": "BOLT-99", "description": "Bolts", "qty": 200, "unitPrice": 10.0 }

],

"confidence": 0.74,

"rawText": "Invoice No: PA-7781\nPO: PO-B-110\nPrices incl. VAT (MwSt. inkl.)\nTotal: 2380.00 EUR\n..."

},

{

  "invoiceId": "INV-B-002",

  "vendor": "Parts AG",

  "fields": {

    "invoiceNumber": "PA-7799",

    "invoiceDate": "20-02-2024",

    "currency": "EUR",

    "poNumber": "PO-B-110",

    "netTotal": 1500.0,

    "taxRate": 0.19,

    "taxTotal": 285.0,

    "grossTotal": 1785.0,

    "lineItems": [

      { "sku": "BOLT-99", "description": "Bolts", "qty": 150, "unitPrice": 10.0 }

    ]

  },
```

```
"confidence": 0.86,
"rawText": "Invoice No: PA-7799\nPO: PO-B-110\nMwSt. inkl.\n...",
},
{
  "invoiceId": "INV-B-003",
  "vendor": "Parts AG",
  "fields": {
    "invoiceNumber": "PA-7810",
    "invoiceDate": "03-03-2024",
    "currency": null,
    "poNumber": "PO-B-111",
    "netTotal": 1000.0,
    "taxRate": 0.19,
    "taxTotal": 190.0,
    "grossTotal": 1190.0,
    "lineItems": [
      { "sku": "NUT-10", "description": "Nuts", "qty": 500, "unitPrice": 2.0 }
    ]
  },
  "confidence": 0.66,
  "rawText": "Invoice No: PA-7810\nPO: PO-B-111\nCurrency: EUR\n...",
},
{
  "invoiceId": "INV-B-004",
  "vendor": "Parts AG",
  "fields": {
```

```
"invoiceNumber": "PA-7810",
"invoiceDate": "04-03-2024",
"currency": "EUR",
"poNumber": "PO-B-111",
"netTotal": 1000.0,
"taxRate": 0.19,
"taxTotal": 190.0,
"grossTotal": 1190.0,
"lineItems": [
  { "sku": "NUT-10", "description": "Nuts", "qty": 500, "unitPrice": 2.0 }
],
"confidence": 0.61,
"rawText": "Duplicate submission of PA-7810\n...",
},
{
  "invoiceId": "INV-C-001",
  "vendor": "Freight & Co",
  "fields": {
    "invoiceNumber": "FC-1001",
    "invoiceDate": "01.03.2024",
    "currency": "EUR",
    "poNumber": "PO-C-900",
    "netTotal": 1000.0,
    "taxRate": 0.19,
    "taxTotal": 190.0,
```

```
"grossTotal": 1190.0,
"lineItems": [
  { "sku": null, "description": "Transport charges", "qty": 1, "unitPrice": 1000.0 }
]
},
"confidence": 0.79,
"rawText": "Invoice: FC-1001\nPO: PO-C-900\n2% Skonto if paid within 10 days\n...",
},
{
  "invoiceId": "INV-C-002",
  "vendor": "Freight & Co",
  "fields": {
    "invoiceNumber": "FC-1002",
    "invoiceDate": "10.03.2024",
    "currency": "EUR",
    "poNumber": "PO-C-900",
    "netTotal": 1000.0,
    "taxRate": 0.19,
    "taxTotal": 190.0,
    "grossTotal": 1190.0,
    "lineItems": [
      { "sku": null, "description": "Seefracht / Shipping", "qty": 1, "unitPrice": 1000.0 }
    ]
  },
  "confidence": 0.73,
  "rawText": "Invoice: FC-1002\nPO: PO-C-900\nService: Seefracht\n..."
```

```
},
{
  "invoiceId": "INV-C-003",
  "vendor": "Freight & Co",
  "fields": {
    "invoiceNumber": "FC-1003",
    "invoiceDate": "20.03.2024",
    "currency": "EUR",
    "poNumber": "PO-C-901",
    "netTotal": 1020.0,
    "taxRate": 0.19,
    "taxTotal": 193.8,
    "grossTotal": 1213.8,
    "lineItems": [
      { "sku": null, "description": "Transport charges", "qty": 1, "unitPrice": 1020.0 }
    ]
  },
  "confidence": 0.77,
  "rawText": "Invoice: FC-1003\nPO: PO-C-901\nSlight fuel surcharge applied\n...",
},
{
  "invoiceId": "INV-C-004",
  "vendor": "Freight & Co",
  "fields": {
    "invoiceNumber": "FC-1004",
    "invoiceDate": "28.03.2024",
```

```
"currency": "EUR",
"poNumber": "PO-C-901",
"netTotal": 1020.0,
"taxRate": 0.19,
"taxTotal": 193.8,
"grossTotal": 1213.8,
"lineItems": [
  { "sku": null, "description": "Transport charges", "qty": 1, "unitPrice": 1020.0 }
],
"confidence": 0.58,
"rawText": "Invoice: FC-1004\nPO: PO-C-901\nNote: delivery confirmation pending\n..."
}
```

2. purchase_orders.json (Full)

```
[
  {
    "poNumber": "PO-A-050",
    "vendor": "Supplier GmbH",
    "date": "2024-01-05",
    "lineItems": [{ "sku": "WIDGET-001", "qty": 100, "unitPrice": 25.0 }]
  },
  {
    "poNumber": "PO-A-051",
    "vendor": "Supplier GmbH",
```

```
"date": "2024-01-18",  
"lineItems": [{ "sku": "WIDGET-002", "qty": 20, "unitPrice": 25.0 }]  
},  
{  
  "poNumber": "PO-B-110",  
  "vendor": "Parts AG",  
  "date": "2024-02-01",  
  "lineItems": [{ "sku": "BOLT-99", "qty": 200, "unitPrice": 10.0 }]  
},  
{  
  "poNumber": "PO-B-111",  
  "vendor": "Parts AG",  
  "date": "2024-03-01",  
  "lineItems": [{ "sku": "NUT-10", "qty": 500, "unitPrice": 2.0 }]  
},  
{  
  "poNumber": "PO-C-900",  
  "vendor": "Freight & Co",  
  "date": "2024-03-01",  
  "lineItems": [{ "sku": "FREIGHT", "qty": 1, "unitPrice": 1000.0 }]  
},  
{  
  "poNumber": "PO-C-901",  
  "vendor": "Freight & Co",  
  "date": "2024-03-15",  
  "lineItems": [{ "sku": "FREIGHT", "qty": 1, "unitPrice": 1000.0 }]
```



```
}  
]
```

3. delivery_notes.json (Full)

```
[  
  {  
    "dnNumber": "DN-A-123",  
    "vendor": "Supplier GmbH",  
    "poNumber": "PO-A-050",  
    "date": "2024-01-10",  
    "lineItems": [{ "sku": "WIDGET-001", "qtyDelivered": 95 }]  
  },  
  {  
    "dnNumber": "DN-A-124",  
    "vendor": "Supplier GmbH",  
    "poNumber": "PO-A-051",  
    "date": "2024-01-22",  
    "lineItems": [{ "sku": "WIDGET-002", "qtyDelivered": 20 }]  
  },  
  {  
    "dnNumber": "DN-B-205",  
    "vendor": "Parts AG",  
    "poNumber": "PO-B-110",  
    "date": "2024-02-03",  
    "lineItems": [{ "sku": "BOLT-99", "qtyDelivered": 200 }]  
  },  
  {  

```

```
"dnNumber": "DN-B-206",
"vendor": "Parts AG",
"poNumber": "PO-B-111",
"date": "2024-03-02",
"lineItems": [{ "sku": "NUT-10", "qtyDelivered": 500 }]
},
{
  "dnNumber": "DN-C-301",
  "vendor": "Freight & Co",
  "poNumber": "PO-C-900",
  "date": "2024-03-02",
  "lineItems": [{ "sku": "FREIGHT", "qtyDelivered": 1 }]
},
{
  "dnNumber": "DN-C-302",
  "vendor": "Freight & Co",
  "poNumber": "PO-C-901",
  "date": "2024-03-18",
  "lineItems": [{ "sku": "FREIGHT", "qtyDelivered": 1 }]
}
]
```

4. human_corrections.json (Full)

```
[
  {
    "invoiceId": "INV-A-001",
    "vendor": "Supplier GmbH",
```

```
"corrections": [  
  { "field": "serviceDate", "from": null, "to": "2024-01-01", "reason": "Leistungsdatum  
found in rawText" }  
],  
  "finalDecision": "approved"  
},  
{  
  "invoiceId": "INV-A-003",  
  "vendor": "Supplier GmbH",  
  "corrections": [  
    { "field": "poNumber", "from": null, "to": "PO-A-051", "reason": "Only matching PO for  
vendor within 30 days and matching item WIDGET-002" },  
    { "field": "serviceDate", "from": null, "to": "2024-01-20", "reason": "Leistungsdatum  
found in rawText" }  
  ],  
  "finalDecision": "approved"  
},  
{  
  "invoiceId": "INV-B-001",  
  "vendor": "Parts AG",  
  "corrections": [  
    { "field": "grossTotal", "from": 2400.0, "to": 2380.0, "reason": "Raw text indicates totals  
already include VAT; extractor overestimated" },  
    { "field": "taxTotal", "from": 400.0, "to": 380.0, "reason": "Recalculated from grossTotal  
and taxRate" }  
  ],  
  "finalDecision": "approved"
```

```
},  
{  
  "invoiceId": "INV-B-003",  
  "vendor": "Parts AG",  
  "corrections": [  
    { "field": "currency", "from": null, "to": "EUR", "reason": "Currency appears in rawText" }  
  ],  
  "finalDecision": "approved"  
},  
{  
  "invoiceId": "INV-C-001",  
  "vendor": "Freight & Co",  
  "corrections": [  
    { "field": "discountTerms", "from": null, "to": "2% Skonto within 10 days", "reason":  
"Skonto terms in rawText" }  
  ],  
  "finalDecision": "approved"  
},  
{  
  "invoiceId": "INV-C-002",  
  "vendor": "Freight & Co",  
  "corrections": [  
    { "field": "lineItems[0].sku", "from": null, "to": "FREIGHT", "reason": "Vendor uses  
descriptions (Seefracht/Shipping) that map to FREIGHT" }  
  ],  
  "finalDecision": "approved"
```

