Normal Scenarios

Sequence

application_received (75) —74→ review_application (74) —74→ credit_check (74) —72→ loan_approval (72) —72→ application_approved (72)

Choice

application_received (87) —83→ review_application (83) —81→ credit_check (81)

credit_check (81) —39→ application_approved (39)

credit_check (81) —42→ application_rejected (42)

Parallel

application_received (80) —80→ review_application (80) —77→ credit_check (77) —24→ asses_risk (76)

credit_check (77) —52→ verify_document (75)

asses_risk (76) —23→ verify_document (75)

verify_document (75) —52→ asses_risk (76)

asses_risk (76) —52→ loan_approval (75)

verify_document (75) —23→ loan_approval (75)

loan_approval (75) —74→ application_approved (74)

Mix

application_received (85) —85→ review_application (85) —78→ credit_check (78) —52→ asses_risk (76)

asses_risk (76) —18→ application_rejected (45)

asses_risk (76) —24→ verify_document (78)

verify_document (78) —52→ asses_risk (76)

verify_document (78) —27→ application_rejected (45)

verify_document (78) —25→ application_approved (31)

credit_check (78) —26→ verify_document (78)

verify_document (78) —6→ application_approved (31)

Feature 1 - Additional Columns

Config:

```
{
  "case_attributes": {
    "requestedAmount": {
      "type": "numerical",
      "min": 1000,
      "max": 10000
    },
    "loanType": {
      "type": "string",
      "values": ["personal", "mortgage", "auto"]
    },
    "isUrgent": {
      "type": "boolean"
    }
  }
}
```
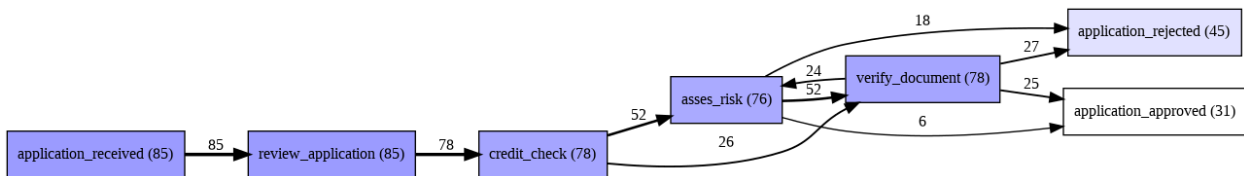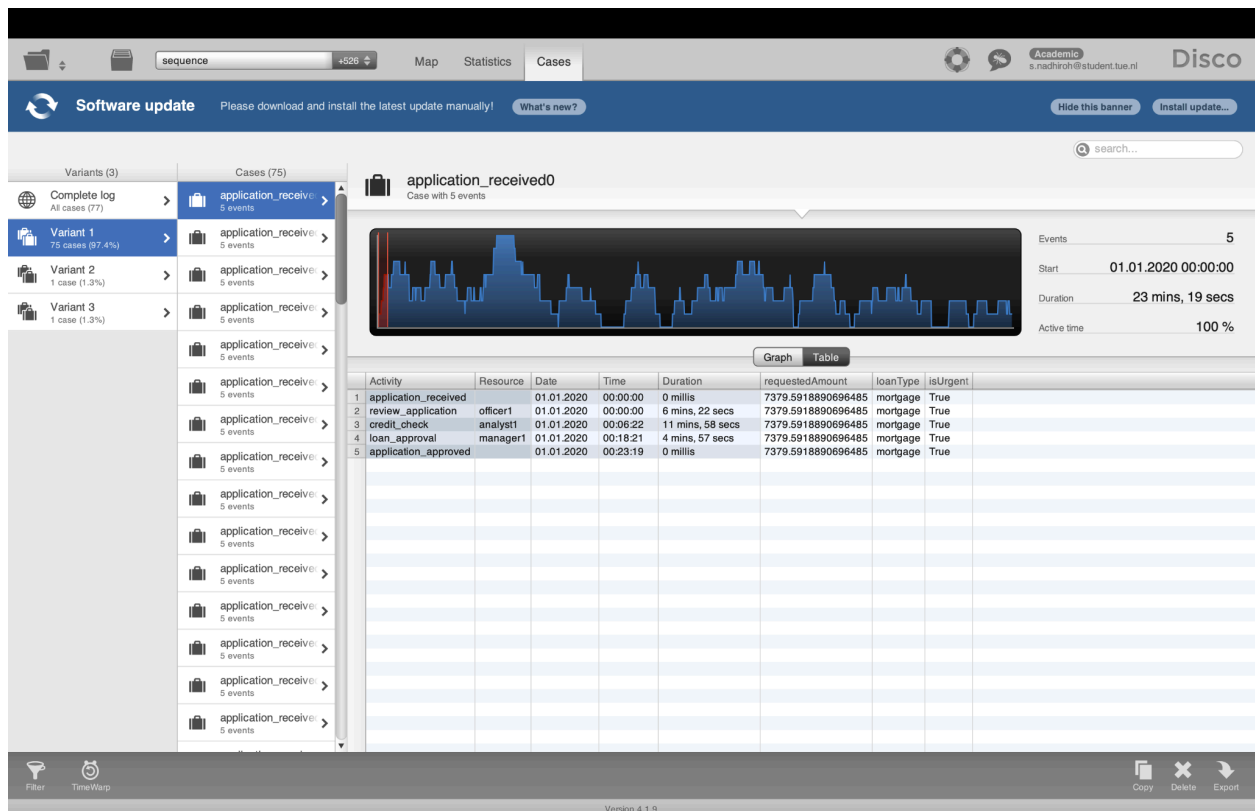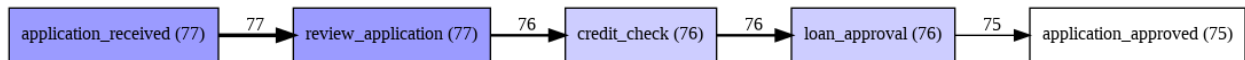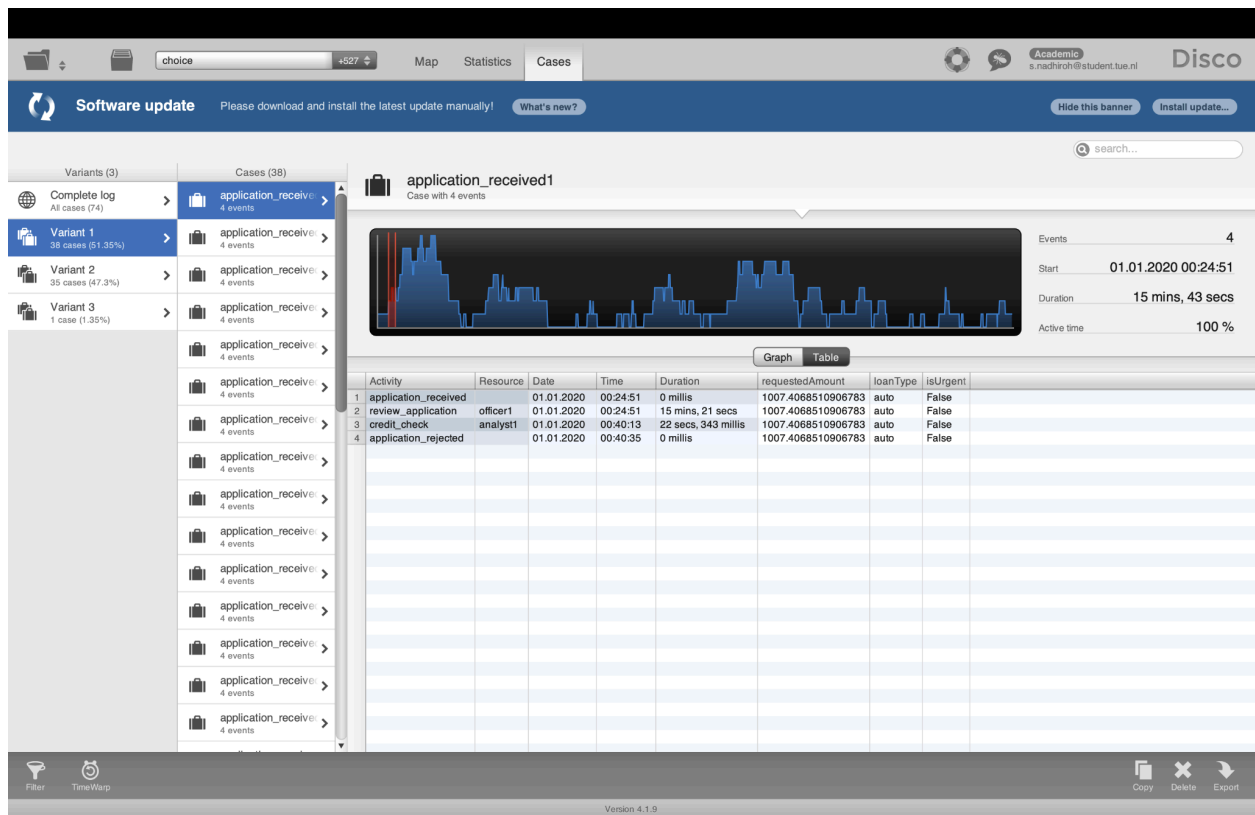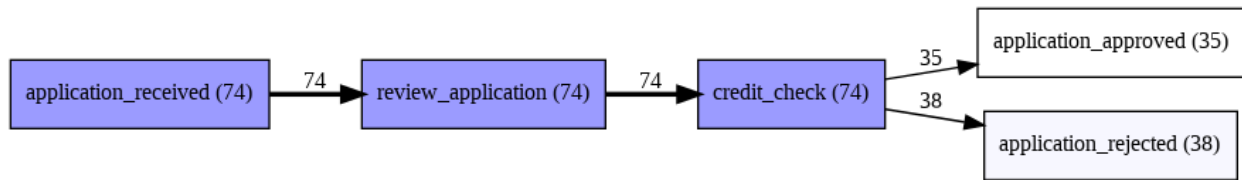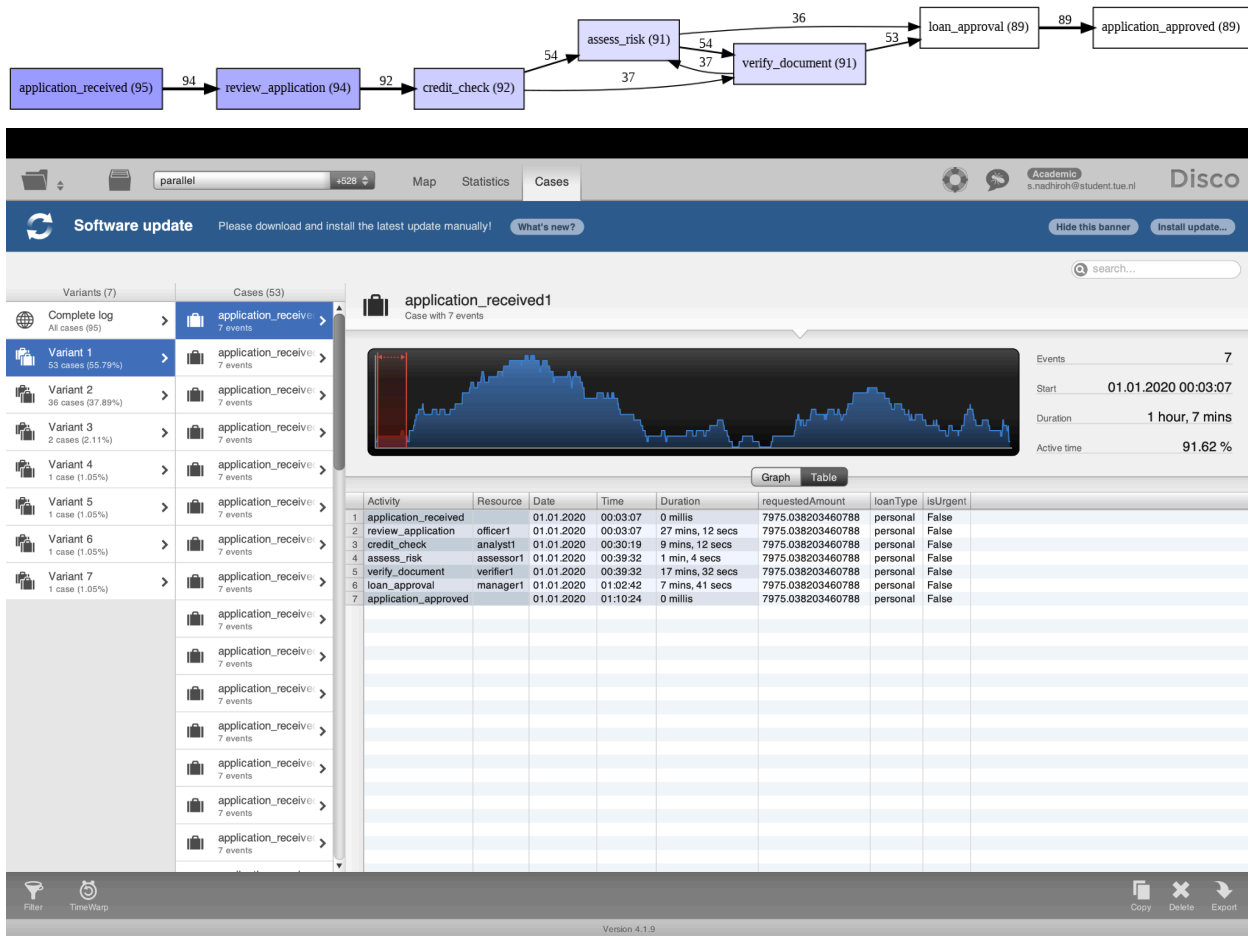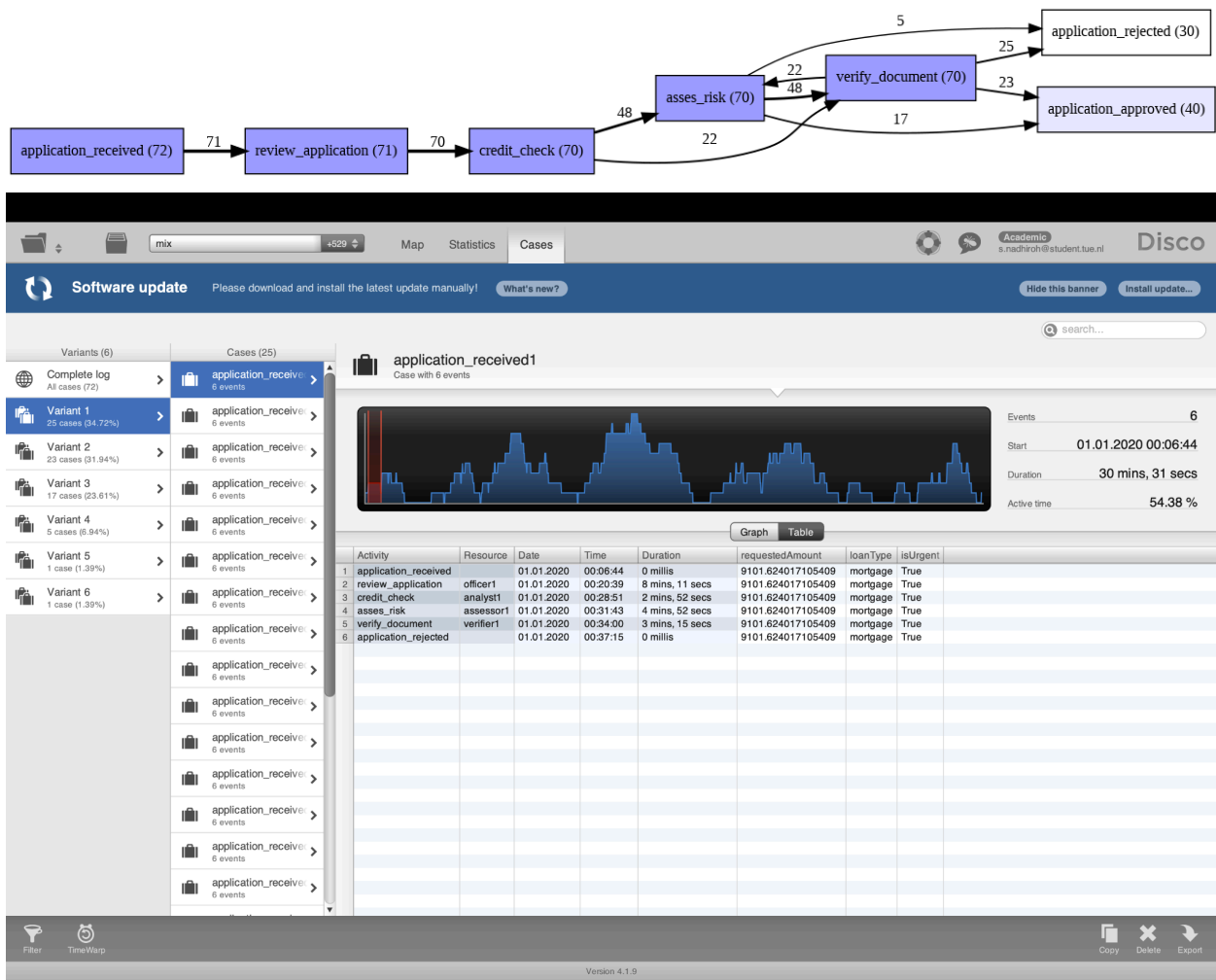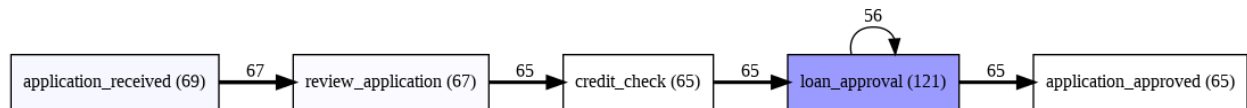
Sequence

Choice

Parallel

Mix

Feature 2 - Single Rework (Without Condition)

Sequence

Config:

```
{
  "rework": [
    {
      "activity": "loan_approval",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```
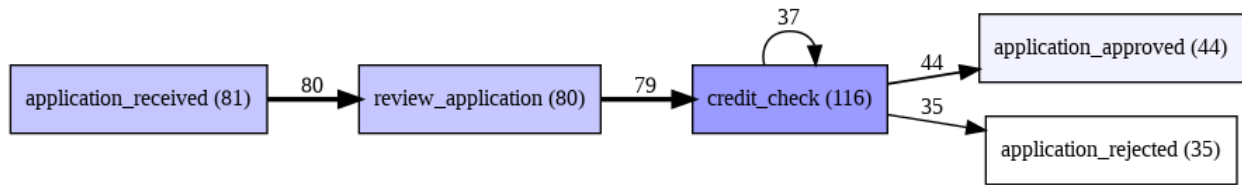
%	Variants
45.98%	Application_received → review_application → credit_check → **loan_approval → loan_approval** → application_approved
32.18%	Application_received → review_application → credit_check → **loan_approval** → application_approved
Others	Others

Config:

```json
{
  "rework": [
    {
      "activity": "loan_approval",
      "max_iteration": 2,
      "probability": 0.5
    }
  ]
}
```

%	Variants
40.58%	Application_received → review_application → credit_check → **loan_approval** → application_approved
27.54%	Application_received → review_application → credit_check → **loan_approval → loan_approval → loan_approval** → application_approved
26.09%	Application_received → review_application → credit_check → **loan_approval → loan_approval** → application_approved
Others	Others

Choice

Config:

```json
{
  "rework": [
    {
      "activity": "credit_check",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```

%	Variants
33.33%	Application_received → review_application → **credit_check** → application_approved
24.69%	Application_received → review_application → **credit_check → credit_check** application_rejected
20.99%	Application_received → review_application → **credit_check → credit_check** application_approved
18.52%	Application_received → review_application → **credit_check** → application_rejected
Others	Others

Config:
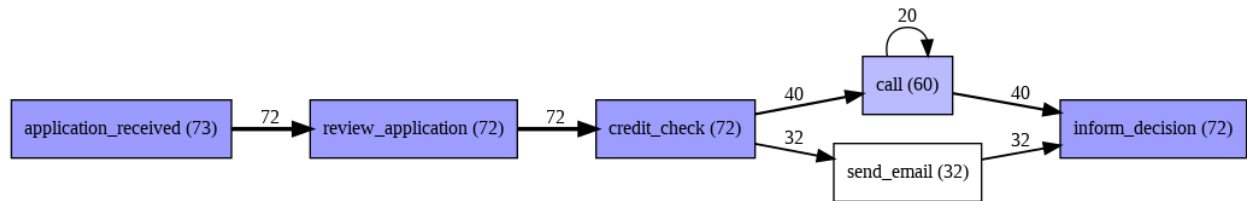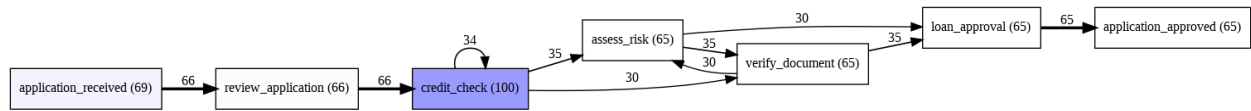
```json
{
  "rework": [
    {
      "activity": "call",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```

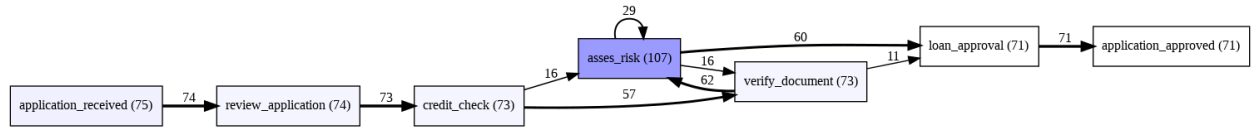| %	Variants
43.84%	Application_received → review_application → credit_check → send_email → inform_decision
27.4%	Application_received → review_application → credit_check → **call** → inform_decision
27.4%	Application_received → review_application → credit_check → **call → call** → inform_decision
Others	Others

Parallel

Config:

```
{
  "rework": [
    {
      "activity": "credit_check",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```

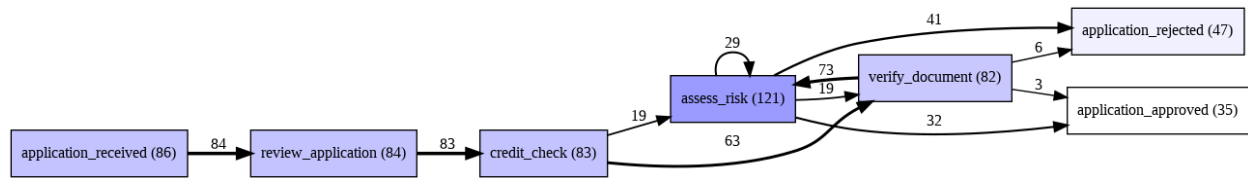| %	Variants
27.54%	Application_received → review_application → **credit_check → credit_check →** assess_risk → verify_document → loan_approval → application_approved
23.19%	Application_received → review_application → **credit_check** → assess_risk → verify_document → loan_approval → application_approved
21.74%	Application_received → review_application → **credit_check** → verify_document → assess_risk → loan_approval → application_approved
21.74%	Application_received → review_application → **credit_check → credit_check →** verify_document → assess_risk → loan_approval → application_approved
Others	Others

Config:

```
{
  "rework": [
    {
      "activity": "assess_risk",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```

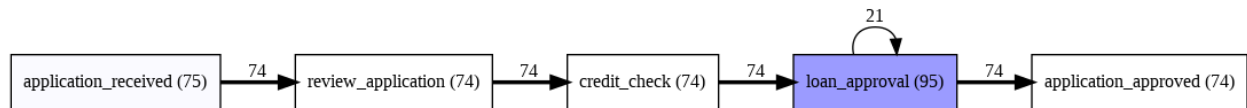| %	Variants
38.67%	Application_received → review_application → credit_check → verify_document → **assess_risk** → loan_approval → application_approved
34.67%	Application_received → review_application → credit_check → verify_document → **assess_risk → assess_risk** → loan_approval → application_approved
12%	Application_received → review_application → credit_check → **assess_risk** → verify_document → loan_approval → application_approved
6.67%	Application_received → review_application → credit_check → **assess_risk** → verify_document → **assess_risk** →loan_approval → application_approved
2.67%	Application_received → review_application → credit_check → **assess_risk → assess_risk** → verify_document → loan_approval → application_approved
Others	Others

Mix

Config:

```json
{
  "rework": [
    {
      "activity": "assess_risk",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```

%	Variants
23.26%	Application_received → review_application → credit_check → verify_document → **assess_risk** → application_rejected
18.6%	Application_received → review_application → credit_check → verify_document → **assess_risk → assess_risk** → application_rejected
18.6%	Application_received → review_application → credit_check → verify_document → **assess_risk** → application_approved
12.79%	Application_received → review_application → credit_check → verify_document → **assess_risk → assess_risk** → application_approved
5.81%	Application_received → review_application → credit_check → **assess_risk** → verify_document → **assess_risk** → application_rejected
5.81%	Application_received → review_application → credit_check → **assess_risk** → verify_document → **assess_risk** → application_approved
5.81%	Application_received → review_application → credit_check → **assess_risk** → verify_document → application_rejected
2.33%	Application_received → review_application → credit_check → **assess_risk** → verify_document → application_approved
1.16%	Application_received → review_application → credit_check → **assess_risk → assess_risk** → verify_document → application_approved
1.16%	Application_received → review_application → credit_check → **assess_risk → assess_risk** → verify_document → application_rejected
Others	Others

Feature 2 - Single Rework (With Condition)
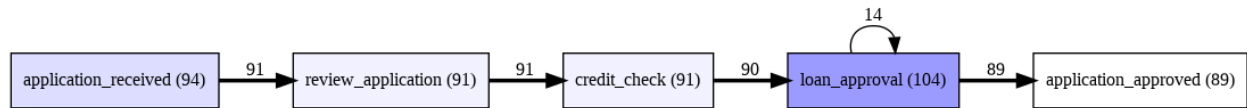
Sequence

Config:

```
{
    "rework": [
      {
        "activity": "loan_approval",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```

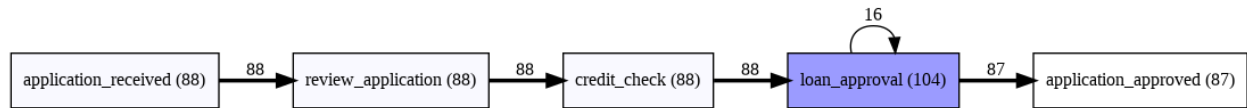| %	Variants
70.67%	Application_received → review_application → credit_check → **loan_approval** → application_approved
28%	Application_received → review_application → credit_check → **loan_approval → loan_approval** → application_approved
Others	Others

Config:

```json
{
    "rework": [
      {
        "activity": "loan_approval",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal' and isUrgent == False"        }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```

%	Variants
79.79%	Application_received → review_application → credit_check → **loan_approval** → application_approved
14.89%	Application_received → review_application → credit_check → **loan_approval → loan_approval** → application_approved
Others	Others

Config:

```json
{
    "rework": [
      {
        "activity": "loan_approval",
        "max_iteration": 1,
        "probability": 0.5,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```
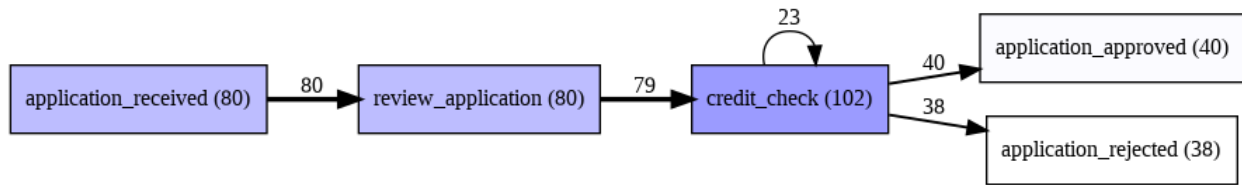
%	Variants
80.68%	Application_received → review_application → credit_check → **loan_approval** → application_approved
18.18%	Application_received → review_application → credit_check → **loan_approval → loan_approval** → application_approved
Others	Others

Choice
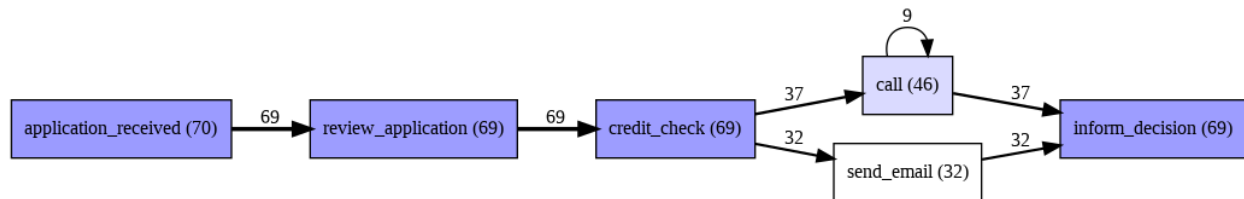

Config:

```json
{
    "rework": [
      {
        "activity": "credit_check",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```

%	Variants
37.5%	Application_received → review_application → **credit_check** → application_rejected
31.25%	Application_received → review_application → **credit_check** → application_approved
18.75%	Application_received → review_application → **credit_check → credit_check** application_approved
10%	Application_received → review_application → **credit_check → credit_check** application_rejected
Others	Others

Config:

```json
{
    "rework": [
      {
        "activity": "call",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```
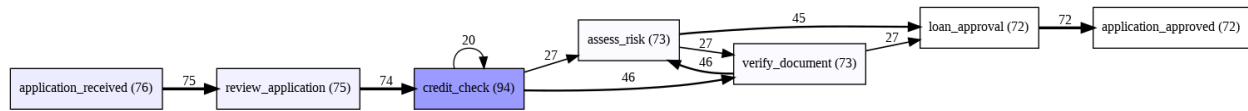
%	Variants
45.71%	Application_received → review_application → credit_check → send_email → inform_decision
40%	Application_received → review_application → credit_check → **call** → inform_decision
12.86%	Application_received → review_application → credit_check → **call → call** → inform_decision
Others	Others

Parallel
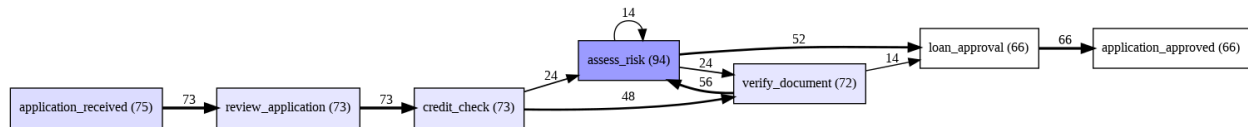

Config:

```json
{
    "rework": [
      {
        "activity": "credit_check",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```

%	Variants
44%	Application_received → review_application → **credit_check** → verify_document → assess_risk → loan_approval → application_approved
17.33%	Application_received → review_application → **credit_check** → assess_risk → verify_document → loan_approval → application_approved
16%	Application_received → review_application → **credit_check → credit_check** → verify_document → assess_risk → loan_approval → application_approved
13.33%	Application_received → review_application → **credit_check → credit_check** → assess_risk → verify_document → loan_approval → application_approved
Others	Others

Config:

```json
{
    "rework": [
      {
        "activity": "assess_risk",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```
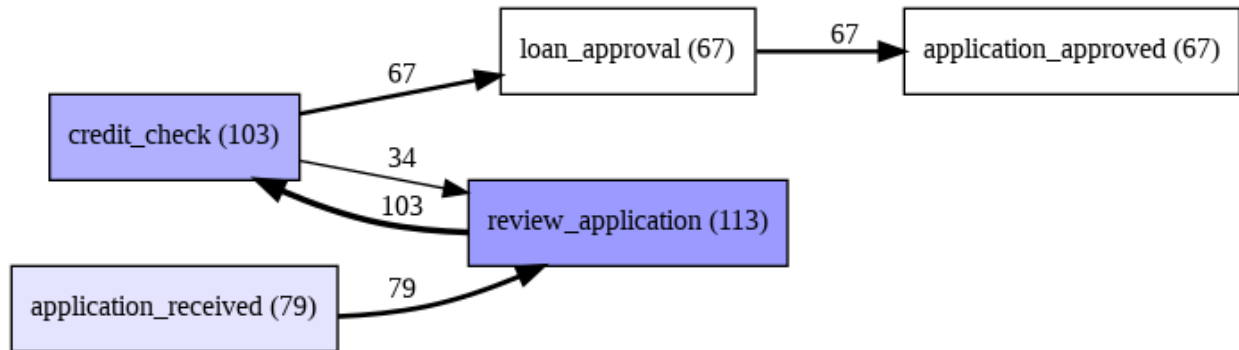
%	Variants
38.67%	Application_received → review_application → credit_check → verify_document → **assess_risk** → loan_approval → application_approved
18.67%	Application_received → review_application → credit_check → **assess_risk** → verify_document → loan_approval → application_approved
18.67%	Application_received → review_application → credit_check → verify_document → **assess_risk → assess_risk** → loan_approval → application_approved
12%	Application_received → review_application → credit_check → **assess_risk** → verify_document → **assess_risk** →loan_approval → application_approved
Others	Others

Feature 3 - Long Rework (Without Condition)

Sequence

Config:
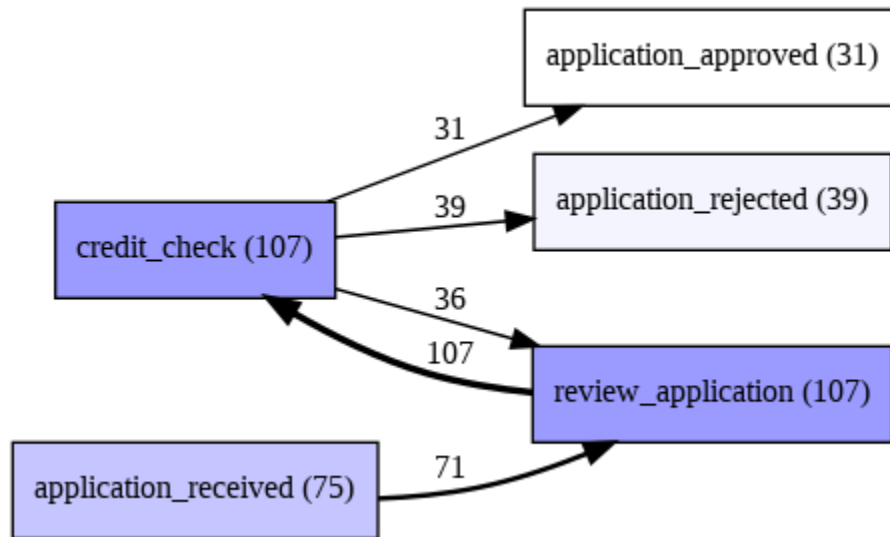
```
{
    "long_rework": [
        {
            "trigger_activity": "credit_check",
            "back_to": "review_application",
            "max_iteration": 1,
            "probability": 0.5
        }
    ]
}
```

%	Variants
46.84%	Application_received → **review_application** → **credit_check** → loan_approval → application_approved
37.97%	Application_received → **review_application → credit_check → review_application → credit_check** → loan_approval → application_approved
Others	Others

Choice
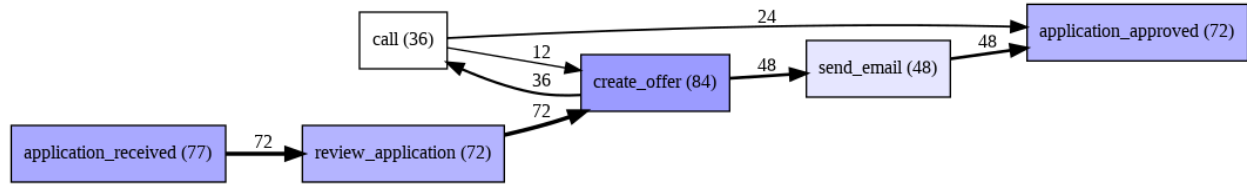

Config:

```json
{
    "long_rework": [
        {
            "trigger_activity": "credit_check",
            "back_to": "review_application",
            "max_iteration": 1,
            "probability": 0.5
        }
    ]
}
```

%	Variants
26.67%	Application_received → **review_application** → **credit_check** → application_rejected
25.33%	Application_received → **review_application → credit_check → review_application → credit_check** → application_rejected
22.67%	Application_received → **review_application → credit_check → review_application → credit_check** → application_approved
18.67%	Application_received → **review_application** → **credit_check** → application_approved
Others	Others

Config:

```
{
    "long_rework": [
        {
            "trigger_activity": "call",
            "back_to": "create_offer",
            "max_iteration": 1,
            "probability": 0.5
        }
    ]
}
```

%	Variants
51.95%	Application_received → review_application → create_offer → send_email → application_approved
25.97%	Application_received → review_application → **create_offer → call →** application_approved
10.39%	Application_received → review_application → **create_offer → call → create_offer →** send_email → application_approved
5.19%	Application_received → review_application → **create_offer → call → create_offer → call →** application_approved
Others	Others

Parallel

Config:
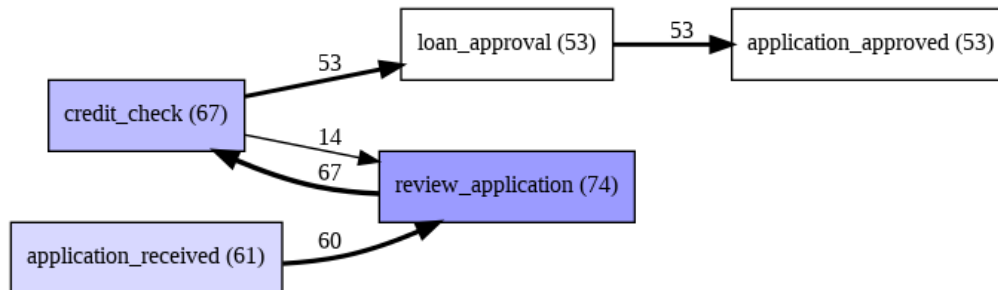
```
{
  "long_rework": [
    {
      "trigger_activity": "assess_risk",
      "back_to": "credit_check",
      "max_iteration": 1,
      "probability": 0.5
    }
  ]
}
```

%	Variants
25%	Application_received → review_application → **credit_check → assess_risk →** verify_document → loan_approval → application_approved
20.59%	Application_received → review_application → **credit_check** → verify_document → **assess_risk** → loan_approval → application_approved
17.65%	Application_received → review_application → **credit_check** → verify_document → **assess_risk → credit_check** → verify_document → **assess_risk** → loan_approval → application_approved
5.88%	Application_received → review_application → **credit_check → assess_risk →** verify_document → **credit_check** → verify_document → **assess_risk** → loan_approval → application_approved
4.41%	Application_received → review_application → **credit_check → assess_risk →** verify_document → **credit_check → assess_risk** → verify_document → loan_approval → application_approved
4.41%	Application_received → review_application → **credit_check** → verify_document → **assess_risk → credit_check → assess_risk** → verify_document → loan_approval → application_approved
Others	Others

Feature 3 - Long Rework (WithCondition)

Sequence
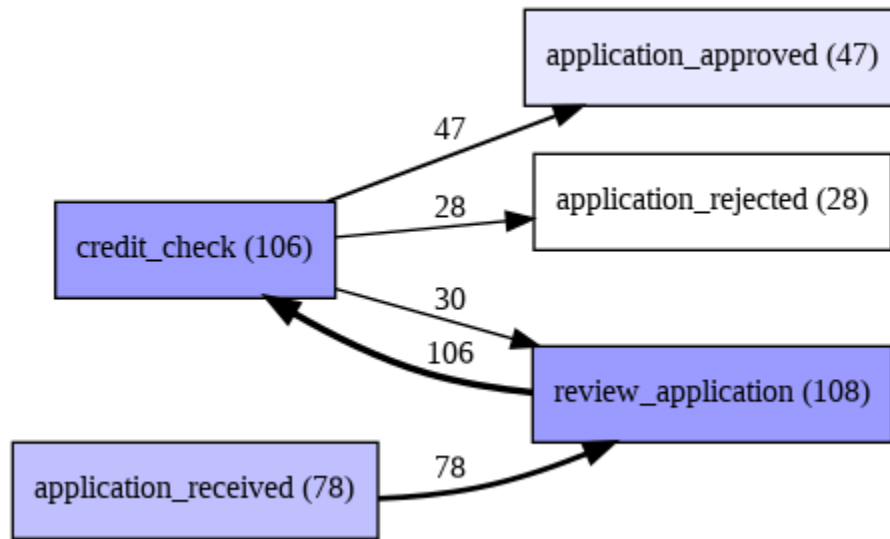

Config:

```json
{
    "long_rework": [
      {
        "trigger_activity": "credit_check",
        "back_to": "review_application",
        "max_iteration": 1,
        "probability": 1,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```

%	Variants
65.75%	Application_received → **review_application** → **credit_check** → loan_approval → application_approved
21.31%	Application_received → **review_application** → **credit_check** → **review_application** → **credit_check** → loan_approval → application_approved
Others	Others

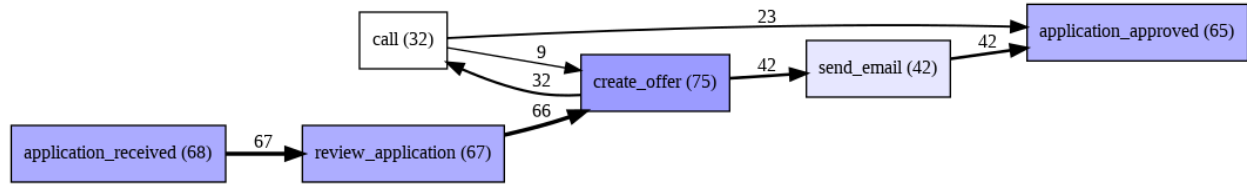# Choice

Config:

```
{
    "long_rework": [
        {
            "trigger_activity": "credit_check",
            "back_to": "review_application",
            "max_iteration": 1,
            "probability": 0.5,
            "condition": "loanType == 'personal'"
        }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
}
```

%	Variants
37.18%	Application_received → **review_application** → **credit_check** → application_approved
23.08%	Application_received → **review_application → credit_check → review_application → credit_check** → application_approved
21.79%	Application_received → **review_application** → **credit_check** → application_rejected
14.1%	Application_received → **review_application → credit_check → review_application → credit_check** → application_rejected
Others	Others

Config:

```json
{
    "long_rework": [
        {
            "trigger_activity": "call",
            "back_to": "create_offer",
            "max_iteration": 1,
            "probability": 0.5,
            "condition": "loanType == 'personal'"
        }
    ],
    "case_attributes": {
        "requestedAmount": {
            "type": "numerical",
            "min": 1000,
            "max": 10000
        },
        "loanType": {
            "type": "string",
            "values": ["personal", "mortgage", "auto"]
        },
        "isUrgent": {
            "type": "boolean"
        }
    }
}
```

%	Variants
55.88%	Application_received → review_application → create_offer → send_email → application_approved
27.94%	Application_received → review_application → **create_offer → call →** application_approved
5.88%	Application_received → review_application → **create_offer → call → create_offer → call →** application_approved
5.88%	Application_received → review_application → **create_offer → call → create_offer →** send_email → application_approved
Others	Others

Parallel

Config:

```
{
  "long_rework": [
      {
        "trigger_activity": "assess_risk",
        "back_to": "credit_check",
        "max_iteration": 1,
        "probability": 0.5,
        "condition": "loanType == 'personal'"
      }
    ],
    "case_attributes": {
      "requestedAmount": {
        "type": "numerical",
        "min": 1000,
        "max": 10000
      },
      "loanType": {
        "type": "string",
        "values": ["personal", "mortgage", "auto"]
      },
      "isUrgent": {
        "type": "boolean"
      }
    }
  }
}
```

%	Variants
30.16%	Application_received → review_application → **credit_check** → verify_document → **assess_risk** → loan_approval → application_approved
25.4%	Application_received → review_application → **credit_check** → **assess_risk** → verify_document → loan_approval → application_approved
20.63%	Application_received → review_application → **credit_check** → verify_document → **assess_risk → credit_check** → verify_document → **assess_risk** → loan_approval → application_approved
6.35%	Application_received → review_application → **credit_check → assess_risk** → verify_document → **credit_check → assess_risk** → verify_document → loan_approval → application_approved
6.35%	Application_received → review_application → **credit_check → assess_risk** → verify_document → **credit_check** → verify_document → **assess_risk** → loan_approval → application_approved
3.17%	Application_received → review_application → **credit_check** → verify_document → **assess_risk → credit_check → assess_risk** → verify_document → loan_approval → application_approved

Others	Others