



Course Overview



View Discussion

Chapter 4: Patterns (Part 2)

Lab: Apply the Polymorphic Pattern

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To solve this problem, you had to use the *Polymorphic Pattern*

The **recruiting_source** field determines the shape of each document. We can rename the **program_affiliation** field to become the **recruiting_source** field in the second and third schema, and simply add that field to the first schema.

Since the program description specified that we were able to unify the name format for all the varying document shapes into two separate fields, **first_name** and **last_name**, we should reflect that change in the third schema.

All other fields present in each schema should remain as they are, since the **recruiting_source** is now communicating the shape of the document to our application.

The document listed in the question should look like the following once transformed:

```
[{
  "_id": ObjectId("5caa9e799c0aa5e39686f803"),
  "first_name": "Arya",
  "last_name": "Stark",
  "recruiting_source": "Recruiting Agency",
  "years_experience": 3,
  "previous_employer": "Hooli",
  "extend_offer": "yes",
  "engineer_level": 3,
  "education": [{
    "level": "BS",
```

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```
    "subject": "Computer Science"
  }],
  "technical": ["C++", "Python", "Java", "Golang", "MongoDB",
"MySQL", "Bash/Shell"],
  "non-technical": {
    "languages": ["English"],
    "other": ["fencing", "dance", "horseback riding",
"management"]
  },
  "candidate_notes": "A fierce warrior and survivor. Will do
amazingly on any team."
}, {
  "_id": ObjectId("5caa9e819c0aa5e39686f804"),
  "first_name": "Ginevra",
  "last_name": "Weasley",
  "recruiting_source": "Veteran Outreach Apprenticeship",
  "extend_offer": "yes",
  "team_placement": "Server",
  "start_date": ISODate("2017-01-31T00:00:00.000Z"),
  "end_date": ISODate("2018-01-31T00:00:00.000Z"),
  "education": "App Bootcamp",
  "technical_skills": ["JS", "ReactJS", "NodeJS", "bash/shell",
"HTML5", "CSS", "Ruby on Rails", "Python"],
  "non-technical_skills": {
    "languages": ["English"],
    "other": ["Magic"]
  },
  "notes": "Ginny has been an amazing part of the team during
the apprenticeship and we would love to extend her an offer to
join us more permanently."
}, {
  "_id": ObjectId("5caa9e899c0aa5e39686f805"),
  "first_name": "Rincewind",
  "last_name": "TheWizzard",
  "recruiting_source": "Techsy Summer Internship ",
  "extend_offer": "yes",
  "team_placement": "Data Optimization",
  "start_date": ISODate("2019-06-01T00:00:00.000Z"),
  "end_date": ISODate("2019-08-31T00:00:00.000Z"),
  "education": [{
    "level": "BA Major",
    "subject": "Philosophy"
  }],
}
```

```
{
  "level": "BS Minor",
  "subject": "Artificial Intelligence"
},
"skills": {
  "technical": ["R", "Django", "JavaScript", "Matlab",
"HTML5", "CSS", "Mathematica", "LaTeX", "Java", "JIRA"],
  "languages": ["English", "Chimeran", "Vanglemesht",
"Sumtri", "Black Oroogu", "High Borogravian", "beTrobi"],
  "other": []
},
"notes": "Rinecewind has great ideas, but he is a bit of a
mess. We still like him a lot and would love to keep him on
board."
}]
```

And the corresponding schema that you verified with the validator would look like this:

```
[{
  "_id": "<objectId>",
  "first_name": "<string>",
  "last_name": "<string>",
  "recruiting_source": "<string>",
  "years_experience": "<int>",
  "previous_employer": "<string>",
  "extend_offer": "<string>",
  "engineer_level": "<int>",
  "education": [{
    "level": "<string>",
    "subject": "<string>"
  }],
  "technical": ["<string>"],
  "non-technical": {
    "languages": ["<string>"],
    "other": ["<string>"]
  },
  "candidate_notes": "<string>"
}, {
  "_id": "<objectId>",
  "first_name": "<string>",
  "last_name": "<string>",
```

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```

    "recruiting_source": "<string>",
    "extend_offer": "<string>",
    "team_placement": "<string>",
    "start_date": "<date>",
    "end_date": "<date>",
    "education": "<string>",
    "technical_skills": ["<string>"],
    "non-technical_skills": {
        "languages": ["<string>"],
        "other": ["<string>"]
    },
    "notes": "<string>"
},
{
    "_id": "<objectId>",
    "first_name": "<string>",
    "last_name": "<string>",
    "recruiting_source": "<string>",
    "extend_offer": "<string>",
    "team_placement": "<string>",
    "start_date": "<date>",
    "end_date": "<date>",
    "education": [{
        "level": "<string>",
        "subject": "<string>"
    },
    {
        "level": "<string>",
        "subject": "<string>"
    }
    ],
    "skills": {
        "technical": ["<string>"],
        "languages": ["<string>"],
        "other": ["<string>"]
    },
    "notes": "<string>"
}
]

```

Proceed to next section