Cash Flow Analysis

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Assumptions

The cash flow analysis will consist of computing the present value of the future revenue of all projects that the company will generate in the following 5 years making the following assumptions:

- Risk free annual effective interest rate of Mexican economy: 0.1.
- Sustained price annual increment ratio of technology: -0.02.

The company will work on 5 types of projects at the same time:

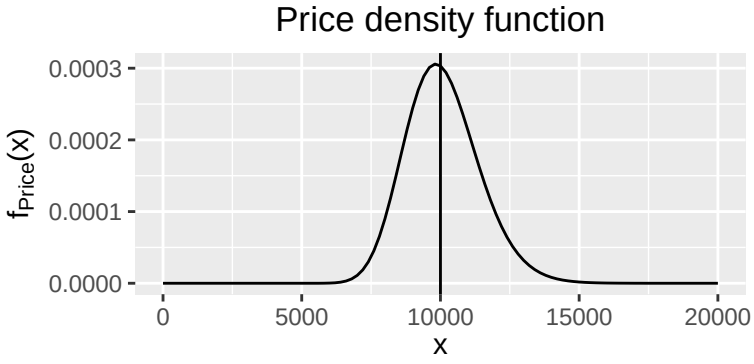
1. Landing pages (only images, company description, contact, almost no functionality),
2. Small projects (basic functionality, manage users, blog, order, e-comerce),
3. Large projects (adding complex functionality, complex back-end computations),
4. Enterprice projects (thousands of users, complex back-end operations), and
5. Inhouse projects (EVA like projects).

Each type of project will arrive to the company according to a Poisson point process with a given ratio λ per year. In other words, the company will arrange contracts with frequency in such a way that it will have development start points randomly distributed in the timeline with a given average. For example, we will consider that the company will develop an average of $\lambda = 24$ landing pages in a year (two each month). We will make these kind of assumptions for each type of project the company wants to develop and the average of contracts in a year will depend on the size of the project.

Landing pages

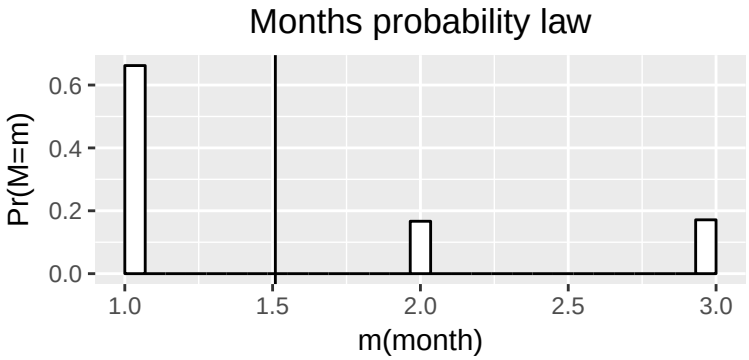
These type of projects will arrive to the company with a ratio of 24 per year and will consider the following assumptions:

- The price of the project will be \$10000 MXN in average with a standar deviation of \$2000 MXN and will have the following distribution:



  The vertical line in the graph above represents the average price of the project.

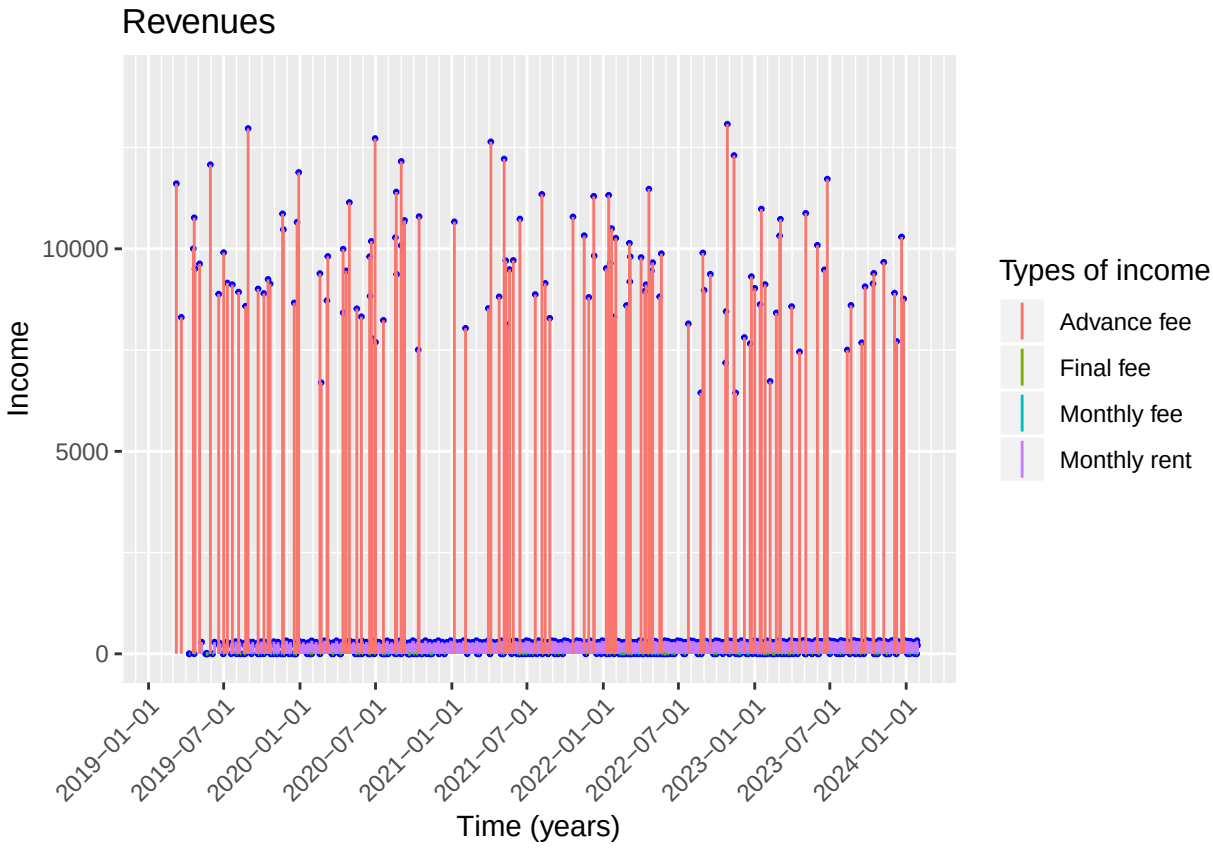
- The development time meaured in montsh of the project will have the following discrete distribution:



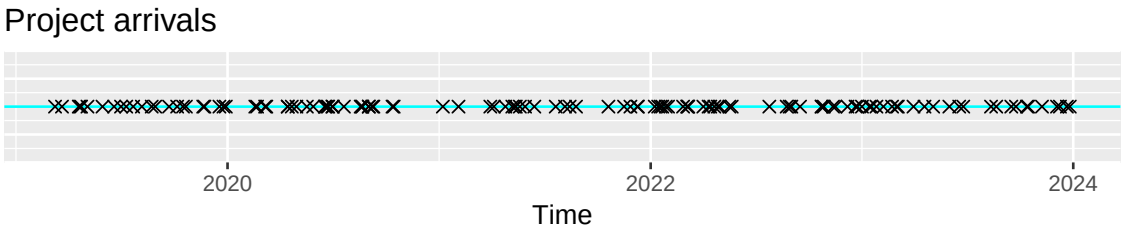
The vertical line in the graph above represents the average development time of the project measured in months.

- 1×100 percent of the project will be charged in advance.

The positive cash flows that the company will obtain during the following 5 years due to the development of these type of projects will look similar to the following graph:



Project arrivals to the company will look like the following graph:

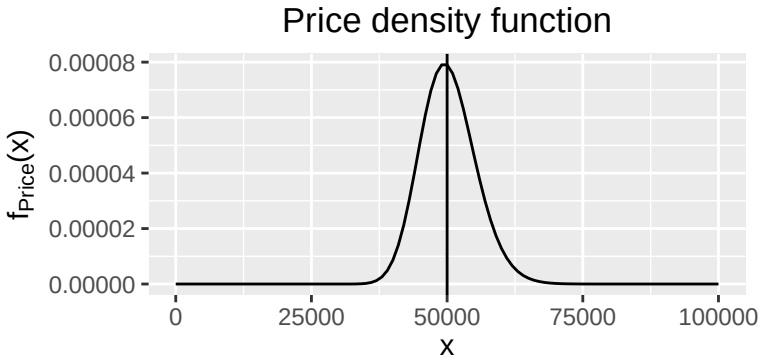


Given the previous future cash flows, the present value of the revenues of these projects is worth $1569144.5589715 MXN.

Small projects

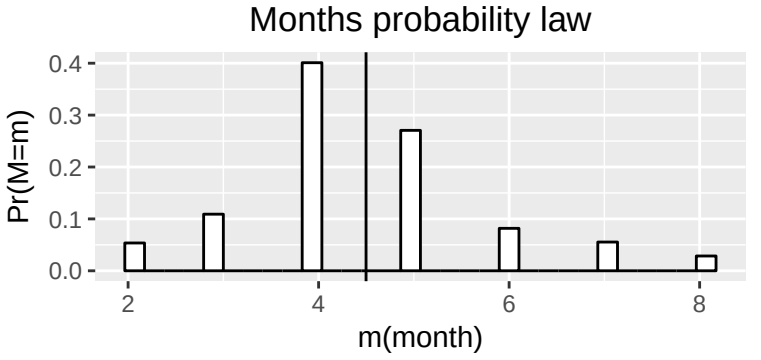
These type of projects will arrive to the company with a ratio of 5 per year and will consider the following assumptions:

- The price of the project will be $50000 MXN in average with a standar deviation of $20000 MXN and will have the following distribution:



  The vertical line in the graph above represents the average price of the project.

- The development time meaured in montsh will have the following discrete distribution:

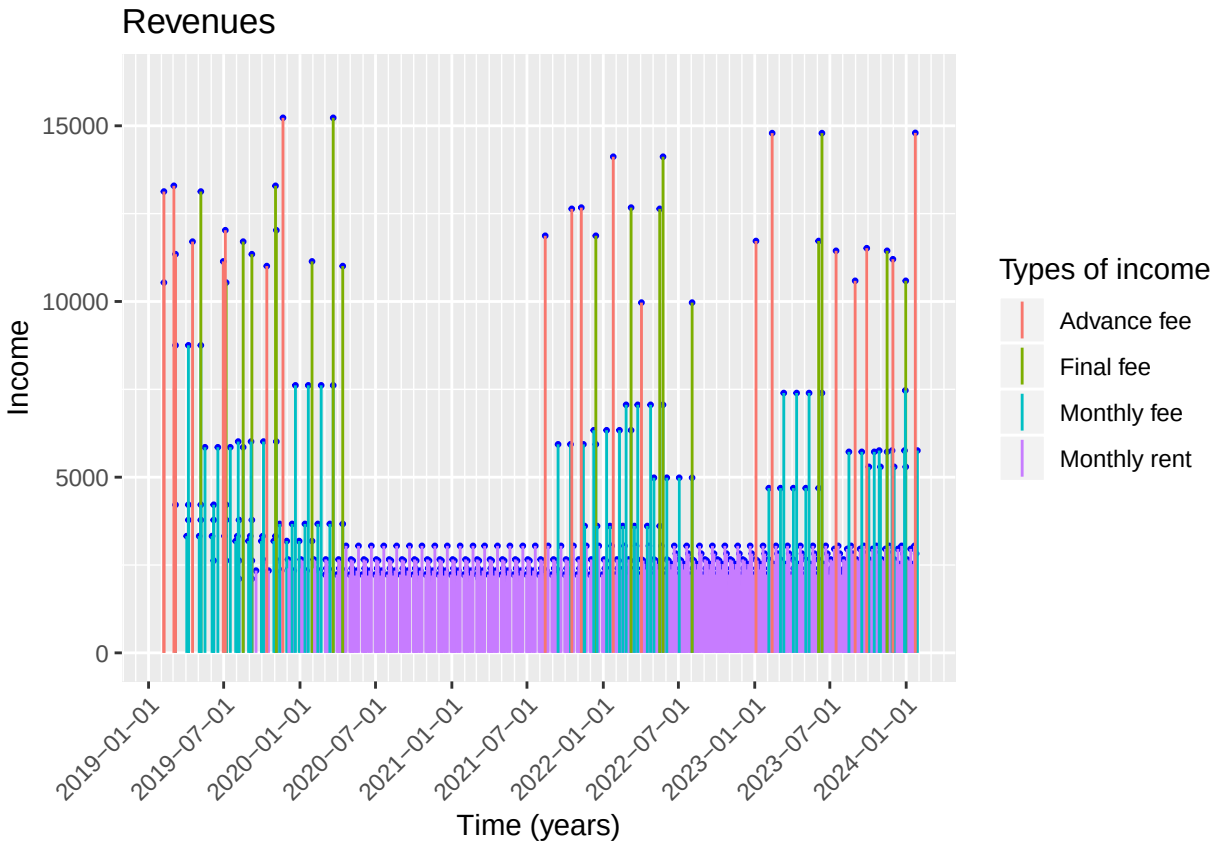


  The vertical line in the graph above represents the average development time of the project measured in months.

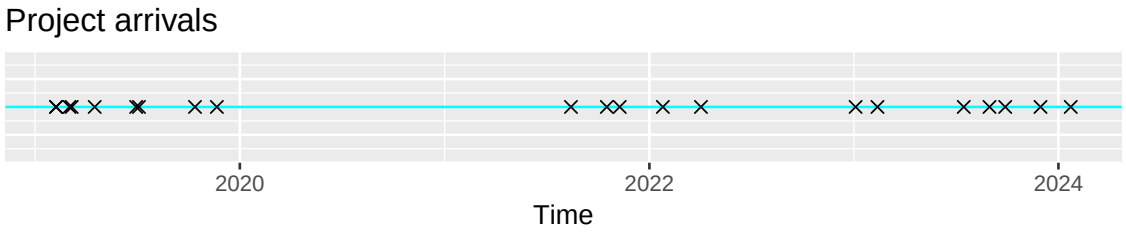
- 0.25×100 percent of the project will be charged in advance.
- 0.5×100 percent of the project will be charged monthly during the development.
- 0.25×100 percent of the project will be charged when the project is finished.

- 0.05×100 percent of the total price will be charged monthly for project maintenance.

The positive cash flows that the company will obtain during the following 5 years due to the development of these type of projects will look similar to the following graph:



Project arrivals to the company will look like the following graph:

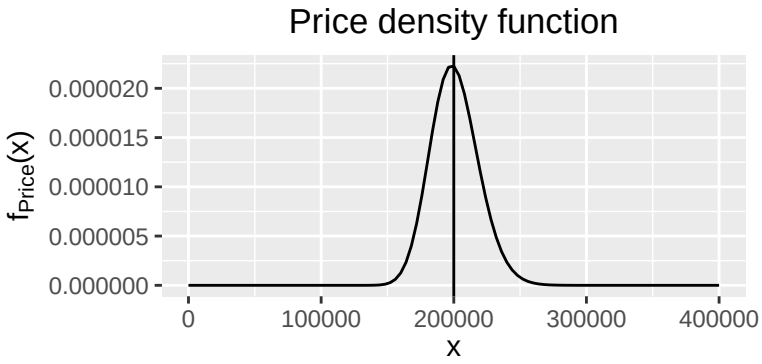


Given the previous future cash flows, the present value of the revenues of these projects is worth $1809345.0887827 MXN.

Large projects

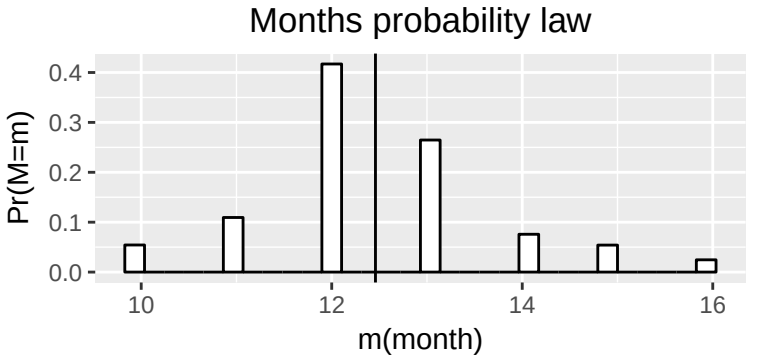
These type of projects will arrive to the company with a ratio of 2 per year and will consider the following assumptions:

- The price of the project will be $200000 MXN in average with a standar deviation of $70000 MXN and will have the following distribution:



The vertical line in the graph above represents the average price of the project.

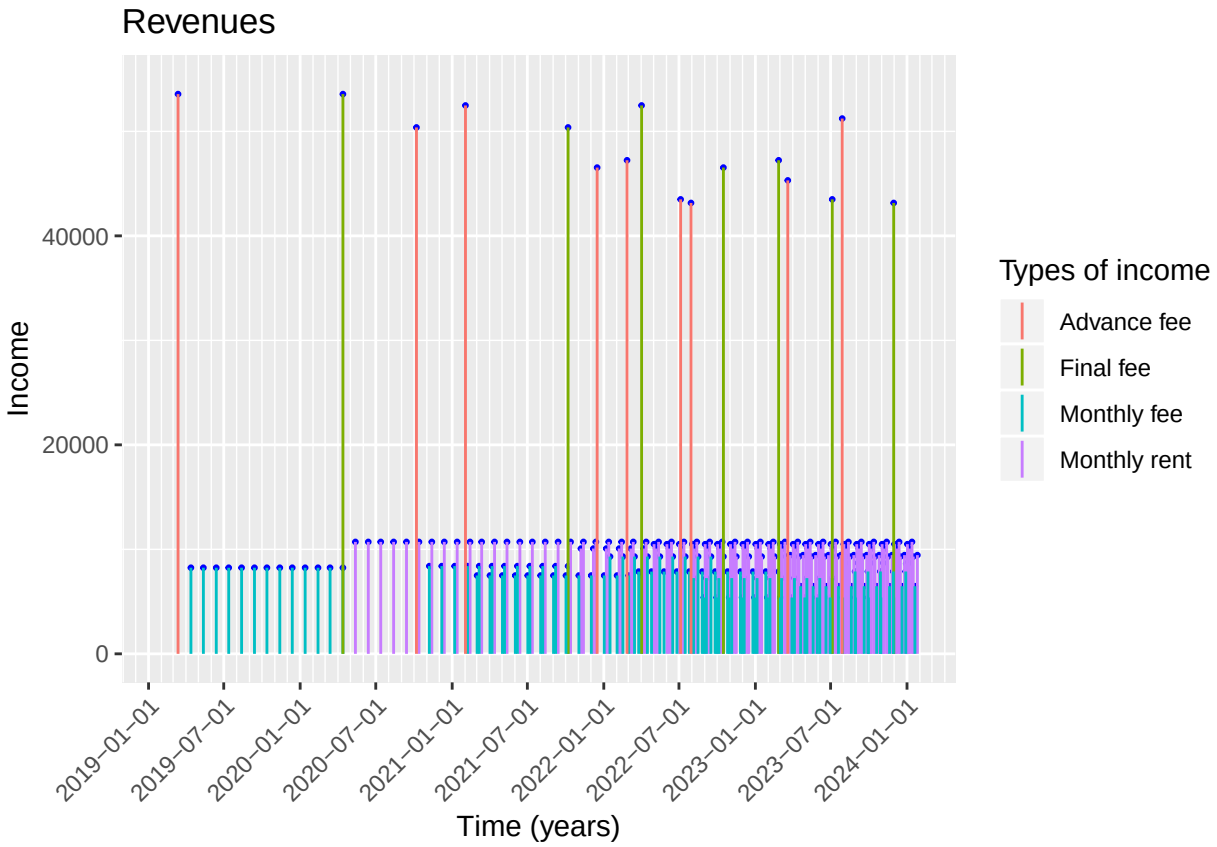
- The development time meaured in montsh will have the following discrete distribution:



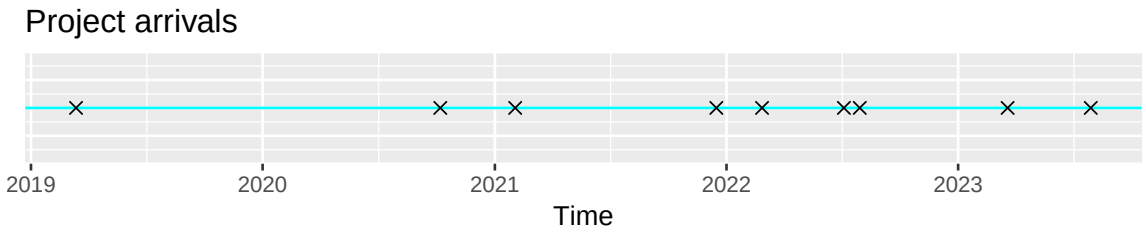
The vertical line in the graph above represents the average development time of the project measured in months.

- 0.25×100 percent of the project will be charged in advance.
- 0.5×100 percent of the project will be charged monthly during the development.
- 0.25×100 percent of the project will be charged when the project is finished.
- 0.05×100 percent of the total price will be charged monthly for project maintenance.

The positive cash flows that the company will obtain during the following 5 years due to the development of these type of projects will look similar to the following graph:



Project arrivals to the company will look like the following graph:

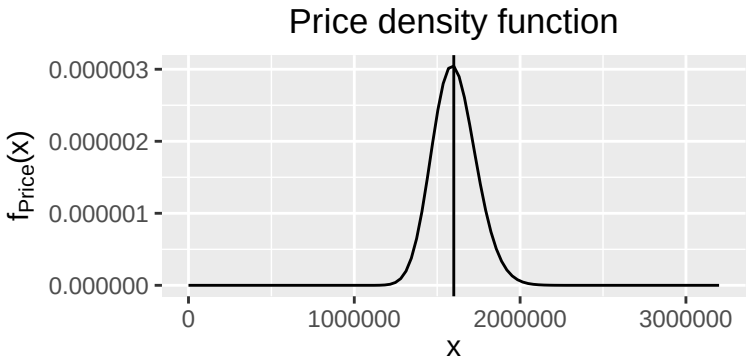


Given the previous future cash flows, the present value of the revenues of these projects is worth $2059275.4100797 MXN.

Enterprise projects

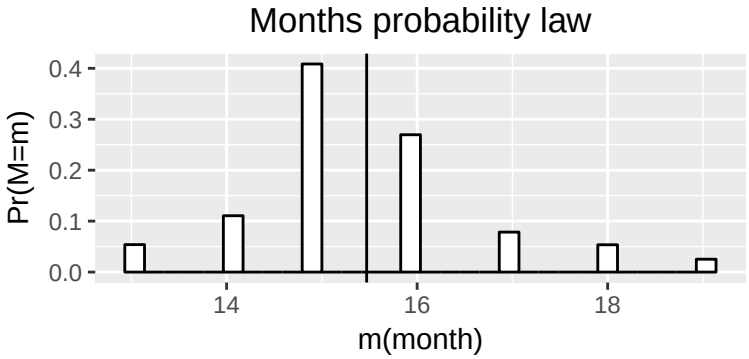
These type of projects will arrive to the company with a ratio of 1 per year and will consider the following assumptions:

- The price of the project will be $1600000 MXN in average with a standar deviation of $200000 MXN and will have the following distribution:



The vertical line in the graph above represents the average price of the project.

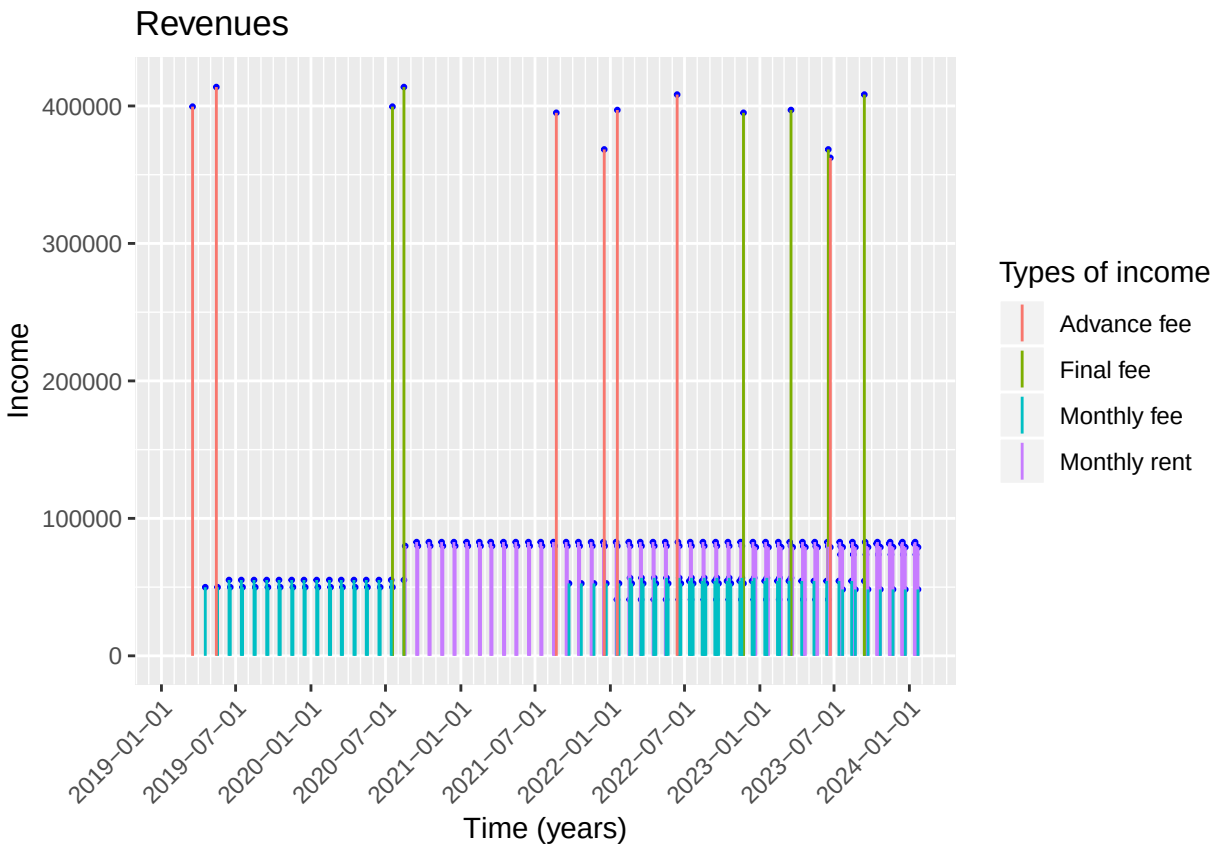
- The development time meaured in montsh will have the following discrete distribution:



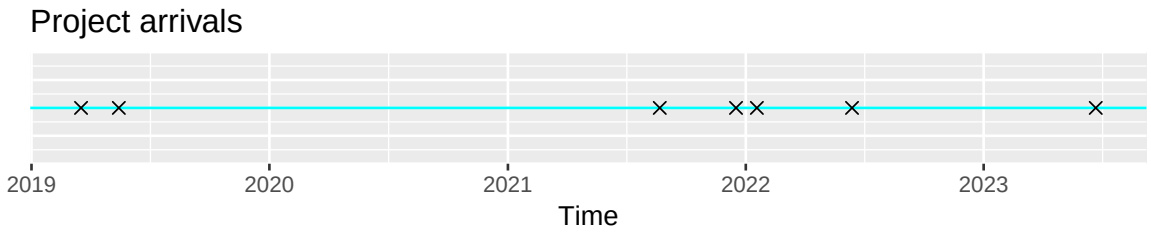
The vertical line in the graph above represents the average development time of the project measured in months.

- 0.25×100 percent of the project will be charged in advance.
- 0.5×100 percent of the project will be charged monthly during the development.
- 0.25×100 percent of the project will be charged when the project is finished.
- 0.05×100 percent of the total price will be charged monthly for project maintenance.

The positive cash flows that the company will obtain during the following 5 years due to the development of these type of projects will look similar to the following graph:



Project arrivals to the company will look like the following graph:

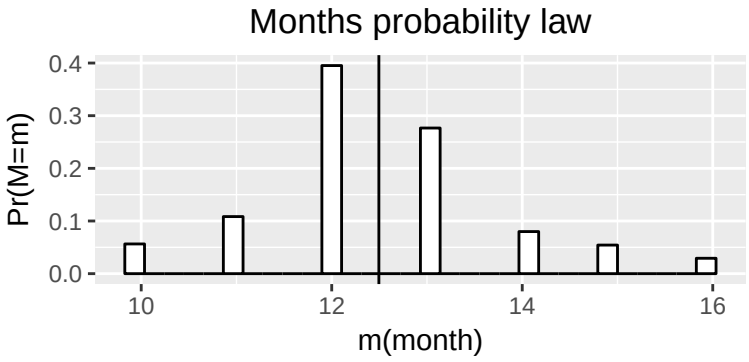


Given the previous future cash flows, the present value of the revenues of these projects is worth $14631473.2094124 MXN.

Inhouse projects

Inhouse projects will arrive to the company with a ratio of 1 per year and will consider the following assumptions:

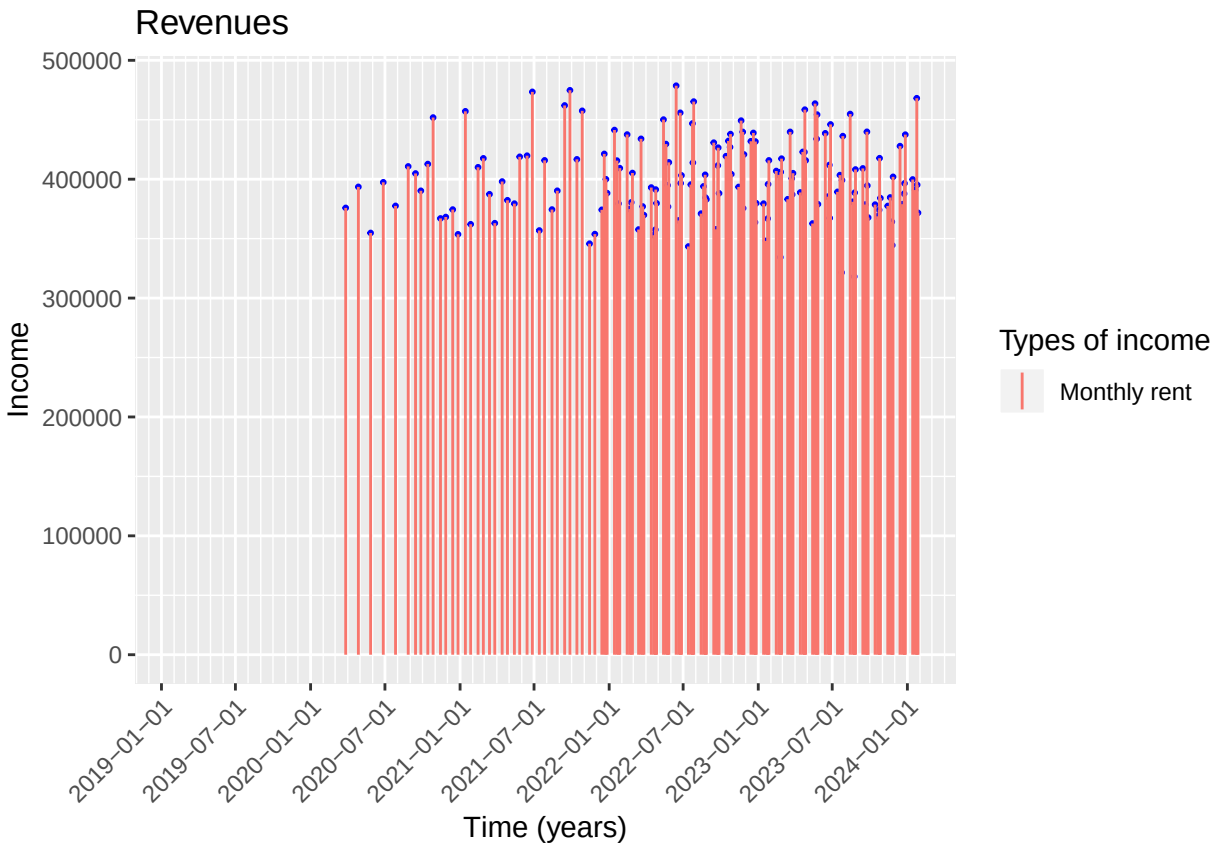
- The development time meaured in montsh will have the following discrete distribution:



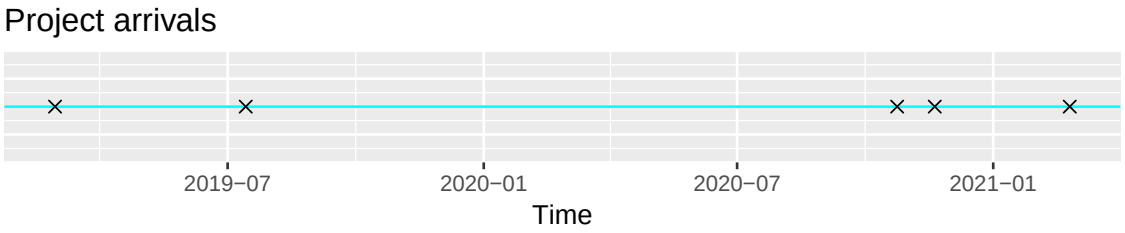
The vertical line in the graph above represents the average development time of the project measured in months.

- The monthly revenue generated by an inhouse project will be $400000 MXN in average with an standard deviation of $100000 MXN.

The positive cash flows that the company will obtain during the following 5 years due to inhouse projects development will look similar to the following graph:



Project arrivals to the company will look like the following graph:



Given the previous future cash flows, the present value of inhouse projects development revenues is worth $46444815.5138439 MXN.

Valuation

Summing up the net present value of all company's projects the net worth of the company es given by $66514053.7810902 MXN.