Servable Application Information

URL: <https://loan-status-prediction.appspot.com>

The application has been deployed on Google Cloud Platform using Flask, Gunicorn, Python, etc.

###**POST/ PREDIT**### Predicts whether a borrower will be classified as Fully Paid or Charged Off on their loan. Also outputs the likelihood that the borrower will pay their loan in full.

The **parameters** are:

|  |  |  |
| --- | --- | --- |
| Parameters | Description | Type |
| loan\_amnt | The listed amount of the loan applied for by the borrower. If at some point in time, the credit department reduces the loan amount, then it will be reflected in this value. | Float |
| term | The number of payments on the loan. Values are in months and can be either 36 or 60. | Category: 36 months or 60 months |
| int\_rate | Interest Rate on the loan | Float expressed as decimal |
| grade | loan grade | Category: A, B, C, D, E, F, G |
| emp\_length | Employment length in years. | Category: < 1 year, 1 year, 2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years, 9 years, 10+ years |
| home\_ownership | The home ownership status provided by the borrower during registration. Our values are: RENT, OWN, MORTGAGE, OTHER. | Category: Rent, Own, Other, Mortgage |
| annual\_inc | The annual income provided by the borrower during registration. | Float |
| verification\_status | three values: not verified, verified, source verified | Category: Not verified, verified, source verified |
| purpose | A category provided by the borrower for the loan request. | Category |
| dti | A ratio calculated using the borrower’s total monthly debt payments on the total debt obligations, excluding mortgage and the requested LC loan, divided by the borrower’s self-reported monthly income. | Float |
| open\_acc | The number of open credit lines in the borrower’s credit file. | Float (only want integer values) |
| revol\_bal | Total credit revolving balance | float |
| revol\_util | Revolving line utilization rate, or the amount of credit the borrower is using relative to all available revolving credit. | Float expressed as decimal |
| total\_acc | The total number of credit lines currently in the borrower’s credit file | Float (only want integer values) |
| issue\_d\_mnth | when the loan was funded | Category: First 3 letters of the Months of Year |
| earliest\_cr\_line\_mnth | when the borrower’s earliest reported credit line was opened | Category: First 3 letters of the Months of Year |
| last\_credit\_pull\_d\_mnth | The most recent month LC pulled credit for this loan | Category: First 3 letters of the Months of Year |
| delinq\_2yrs\_2cat | The number of 30+ days past-due incidences of delinquency in the borrower’s credit file for the past 2 years | Category: 0,1+ |
| inq\_last\_6mths\_2cats | The number of inquiries by creditors during the past 6 months. | Category: 0,1+ |
| pub\_rec\_2cats | Number of derogatory public records | Category: 0,1+ |
| pub\_rec\_bankruptcies\_2cats | assuming: number of bankruptcies | Category: 0,1+ |

The **outputs** are:

1. Loan\_status: Fully Paid or Charged Off
2. Probability\_likelihood: The probability that it will be paid off in full.

**Service Level Agreement (SLA)**

**for *Customer***

**by**

Loan Status Prediction Team

**Effective Date: 07-30-2019**

|  |  |
| --- | --- |
| **Document Owner:** | Loan Status Prediction Team |

**Version**

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Description | Author |
| 1.0 | 07-30-2019 | Service Level Agreement | Elise B. |
|  |  |  |  |
|  |  |  |  |

**Approval**

*(By signing below, all Approvers agree to all terms and conditions outlined in this Agreement.)*

|  |  |  |  |
| --- | --- | --- | --- |
| Approvers | Role | Signed | Approval Date |
| Loan Status Prediction Team | Service Provider |  | 07-30-2019 |
| Customer | Customer |  | 07-30-2019 |

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# Agreement Overview

This Agreement represents a Service Level Agreement (“SLA” or “Agreement”) between *Loan Status Prediction Team*. and Customer for the provisioning of IT services required to support and sustain the Product or service.

This Agreement remains valid until superseded by a revised agreement mutually endorsed by the stakeholders.

This Agreement outlines the parameters of all IT services covered as they are mutually understood by the primary stakeholders. This Agreement does not supersede current processes and procedures unless explicitly stated herein.

# Goals & Objectives

The **purpose** of this Agreement is to ensure that the proper elements and commitments are in place to provide consistent IT service support and delivery to the Customer(s) by the Service Provider(s).

The **goal** of this Agreement is to obtain mutual agreement for IT service provision between the Service Provider(s) and Customer(s).

The **objectives** of this Agreement are to:

* + Provide clear reference to service ownership, accountability, roles and/or responsibilities.
  + Present a clear, concise and measurable description of service provision to the customer.
  + Match perceptions of expected service provision with actual service support & delivery.

# Stakeholders

The following Service Provider(s) and Customer(s) will be used as the basis of the Agreement and represent the **primary** **stakeholders** associated with this SLA:

**IT Service Provider(s):** Loan Status Prediction Team. (“Provider”)

**IT Customer(s):** Customer (“Customer”)

# Periodic Review

This Agreement is valid from the **Effective Date** outlined herein and is valid until further notice. This Agreement should be reviewed at a minimum once per fiscal year; however, in lieu of a review during any period specified, the current Agreement will remain in effect.

The **Business Relationship Manager** (“Document Owner”) is responsible for facilitating regular reviews of this document. Contents of this document may be amended as required, provided mutual agreement is obtained from the primary stakeholders and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements / approvals as required.

**Business Relationship Manager:** Loan Status Prediction Team

**Review Period:** Bi-Yearly (6 months)

**Previous Review Date:** 07-30-2019

**Next Review Date:** 01-30-2011

# Service Agreement

The following detailed service parameters are the responsibility of the Service Provider in the ongoing support of this Agreement.

## Service Scope

The following Services are covered by this Agreement;

## Monitored website support

## Remote assistance using Remote Desktop and a Virtual Private Network where available

* + Planned or Emergency Onsite assistance (extra costs apply)
  + Monthly system health check

## Customer Requirements

**Customer** responsibilities and/or requirements in support of this Agreement include:

* Payment for all support costs at the agreed interval.
* Reasonable availability of customer representative(s) when resolving a service related incident or request.

## Service Provider Requirements

**Service Provider** responsibilities and/or requirements in support of this Agreement include:

* Meeting response times associated with service related incidents.
* Appropriate notification to Customer for all scheduled maintenance.

## Service Assumptions

Assumptions related to in-scope services and/or components include:

* Changes to services will be communicated and documented to all stakeholders.

# Service Management

Effective support of in-scope services is a result of maintaining consistent service levels. The following sections provide relevant details on service availability, monitoring of in-scope services and related components.

## Service Availability

Coverage parameters specific to the service(s) covered in this Agreement are as follows

* Website support: Monitored 9:00 A.M. to 5:00 P.M. Monday – Friday
  + Website issues received outside of office hours will be collected, however no action can be guaranteed until the next working day
  + 99.5% availability between these hours of website.
* Onsite assistance guaranteed within 72 hours during the business week

## Service Requests

In support of services outlined in this Agreement, the Service Provider will respond to service related incidents and/or requests submitted by the Customer within the following time frames:

* 0-8 hours (during business hours) for issues classified as **High** priority.
* Within 48 hours for issues classified as **Medium** priority.
* Within 5 working days for issues classified as **Low** priority.

Remote assistance will be provided in-line with the above timescales dependent on the priority of the support request.