# Anexo 5: Flujo de caja del proyecto

## Costos de procesos

### Desglose de costos de procesos vigentes

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Procesos vigentes** |  |  |  |  |  |  |  |  |
| **Proceso** | **Recurso** | **$ mensual** | **$ minuto** | **Minutos** | **Q diarias** | **Q mensual** | **Q minutos mensual** | **Costo mensual** |
| Agendar atencion | Operador | $450,000 | $46.88 | 3 | 110 | 2200 | 6600 | $309,375 |
| Agendar atencion | Médico | $1,000,000 | $104.17 | 3 | 25 | 500 | 1500 | $156,250 |
| Abrir y cerrar cajas | Operador | $450,000 | $46.88 | 25 | 2 | 40 | 1000 | $46,875 |
| Reporte de cajas | Jefe de operadores | $750,000 | $78.13 | 20 | 1 | 20 | 400 | $31,250 |
| Pago honorarios | Jefe de operadores | $750,000 | $78.13 | 360 | 0.05 | 1 | 360 | $28,125 |
| Actualizar ficha médica | Medico | $1,000,000 | $104.17 | 5 | 45 | 900 | 4500 | $468,750 |
| Actualizar ficha médica | Enfermero | $700,000 | $72.92 | 5 | 25 | 500 | 2500 | $182,292 |
| Actualizar ficha médica | Tecnólogo | $600,000 | $62.50 | 5 | 25 | 500 | 2500 | $156,250 |
| Entrega examen | Enfermero | $700,000 | $72.92 | 10 | 50 | 1000 | 10000 | $729,167 |
| Buscar ficha médica | Operador | $450,000 | $46.88 | 5 | 50 | 1000 | 5000 | $234,375 |
| Generar agenda diaria | Operador | $450,000 | $46.88 | 20 | 20 | 400 | 8000 | $375,000 |
| Consultar por seguro | Operador | $450,000 | $46.88 | 3 | 100 | 2000 | 6000 | $281,250 |
| Pago atención | Operador | $450,000 | $46.88 | 1 | 100 | 2000 | 2000 | $93,750 |
| Devolución de pago | Operador | $450,000 | $46.88 | 8 | 5 | 100 | 800 | $37,500 |
| Anulación de atención | Operador | $450,000 | $46.88 | 3 | 10 | 200 | 600 | $28,125 |
| **Total** |  |  |  |  |  |  |  | **$3,158,333** |

### Desglose de procesos propuestos

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Procesos propuestos** |  |  |  |  |  |  |  |  |
| **Proceso** | **Recurso** | **$ mensual** | **$ minuto** | **Minutos** | **Q diarias** | **Q mensual** | **Q minutos mensual** | **Costo mensual** |
| Agendar atencion | Operador | $450,000 | $46.88 | 0.333333333 | 110 | 2200 | 733.3333333 | $34,375 |
| Agendar atencion | Médico | $1,000,000 | $104.17 | 0.333333333 | 25 | 500 | 166.6666667 | $17,361 |
| Abrir y cerrar cajas | Operador | $450,000 | $46.88 | 1 | 2 | 40 | 40 | $1,875 |
| Reporte de cajas | Jefe de operadores | $750,000 | $78.13 | 0.166666667 | 1 | 20 | 3.333333333 | $260 |
| Pago honorarios | Jefe de operadores | $750,000 | $78.13 | 0 | 0.05 | 1 | 0 | $- |
| Actualizar ficha médica | Medico | $1,000,000 | $104.17 | 2 | 45 | 900 | 1800 | $187,500 |
| Actualizar ficha médica | Enfermero | $700,000 | $72.92 | 2 | 25 | 500 | 1000 | $72,917 |
| Actualizar ficha médica | Tecnólogo | $600,000 | $62.50 | 2 | 25 | 500 | 1000 | $62,500 |
| Entrega examen | Enfermero | $700,000 | $72.92 | 0 | 50 | 1000 | 0 | $- |
| Buscar ficha médica | Operador | $450,000 | $46.88 | 0.166666667 | 50 | 1000 | 166.6666667 | $7,813 |
| Generar agenda diaria | Operador | $450,000 | $46.88 | 0 | 20 | 400 | 0 | $- |
| Consultar por seguro | Operador | $450,000 | $46.88 | 0.033333333 | 100 | 2000 | 66.66666667 | $3,125 |
| Pago atención | Operador | $450,000 | $46.88 | 0.333333333 | 100 | 2000 | 666.6666667 | $31,250 |
| Devolución de pago | Operador | $450,000 | $46.88 | 0.5 | 5 | 100 | 50 | $2,344 |
| Anulación de atención | Operador | $450,000 | $46.88 | 3 | 10 | 200 | 600 | $28,125 |
| **Total** |  |  |  |  |  |  |  | **$449,444** |

## Ahorro proyectado

|  |  |
| --- | --- |
| Costo mensual de procesos vigentes | $3,158,333 |
| Costo mensual de procesos propuestos | $449,444 |
| **Ahorro proyectado** | **$2,708,889** |

## Costo fijo mensual del sistema

|  |  |
| --- | --- |
| Amazon AWS EC2 | $10,050 |
| Amazon AWS RDS | $16,750 |
|  |  |
| **Total** | **$26,800** |

## Costos de desarrollo e implementación del sistema

|  |  |
| --- | --- |
| Desarrollo software | $13,416,000 |
| Implantación | $104,000 |
| Capacitación médico | $50,000 |
| Capacitación operador | $22,500 |
| Capacitación jefe de operadores | $37,500 |
| Capacitación efermero | $35,000 |
| Capacitación tecnólogo | $30,000 |
|  |  |
| **Costo del sistema** | **$13,695,000** |

### Flujo de caja del proyecto

El horizonte del proyecto es a 10 meses.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Ingreso operacional |  | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 | $2,708,889 |
| costo fijo |  | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 | $26,800 |
| utilidad bruta |  | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 | $2,735,689 |
| IVA |  | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) | $(519,781) |
| utilidad neta |  | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 |
| inversión fija | $(13,695,000) |  |  |  |  | $- |  |  |  |  |  |  |  |
| flujo | $(13,695,000) | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 | $2,215,908 |
| VAN(al 10%) | $1,275,922 |  |  |  |  |  |  |  |  |  |  |  |  |
| Payback | 10 |  |  |  |  |  |  |  |  |  |  |  |  |
| IVA | 19% |  |  |  |  |  |  |  |  |  |  |  |  |