



Simple Node.js:

```

const http = require('http');
const hostname = '127.0.0.1';
const port = 3311;

http.createServer((req, res) => {
  res.writeHead(200, { 'Content-Type': 'text/plain' });
  res.end('Node app is running!');
}).listen(port, hostname, () => {
  console.log(`Server running at http://${hostname}:${port}/`);
});

```

Systemd file (/etc/systemd/system):

```
[Unit]
Description=Start Node.js App
After=network.target

[Service]
ExecStart=/usr/bin/node /root/code/node/server.js
KillMode=control-group
WorkingDirectory=/root/code/node
Restart=on-failure

[Install]
WantedBy=multi-user.target
```

Health Check Script (/usr/local/bin):

```
#!/bin/bash

# Configuration
SERVICE_URL="http://127.0.0.1:3311"
LOG_FILE="/var/log/nodejs-health.log"
WARNING_FILE="/var/log/nodejs-warnings.log"

# Function to log messages
log_message() {
    local timestamp=$(date '+%Y-%m-%d %H:%M:%S')
    echo "[$timestamp] $1" >> "$LOG_FILE"
}
```

```
# Function to log warnings
```

```
log_warning() {  
    local timestamp=$(date '+%Y-%m-%d %H:%M:%S')  
    echo "[$timestamp] WARNING: $1" >> "$WARNING_FILE"  
}
```

```
# Function to check if systemd service is running
```

```
check_systemd_service() {  
    systemctl is-active --quiet node.service  
    return $?  
}
```

```
# Function to restart the service
```

```
restart_service() {  
    log_message "Attempting to restart node.service..."  
    sudo systemctl restart node.service  
    sleep 5 # Wait for service to restart  
  
    if check_systemd_service; then  
        log_message "Service successfully restarted"  
        return 0  
    else  
        log_warning "Failed to restart Node.js service - System remains down"  
        return 1  
    fi  
}
```

```
# Main health check

main() {

    # Create log files if they don't exist

    if ! [ -f "$LOG_FILE" ]; then

        touch "$LOG_FILE"

    fi

    if ! [ -f "$WARNING_FILE" ]; then

        touch "$WARNING_FILE"

    fi


    # Check if service is running

    if ! check_systemd_service; then

        log_warning "Node.js service is not running - System crashed"

        if ! restart_service; then

            echo "Please check the systemd file/service.js file as the service is not running"

            exit 1

        fi

    fi


    # Make HTTP request to check service

    response=$(curl -s -w "%{http_code}" "$SERVICE_URL" -o /dev/null)

    echo "$response"

    if [ "$response" = "200" ]; then

        log_message "Health check passed - Service is responding normally"

    else

        log_warning "Service is not responding properly (HTTP $response) - System may be crashed"

    fi

}


# Run main function

main
```

Crontab -e: (As Cron only works with minutes, we had to use this way around to run it in every 10 seconds interval)

```
* * * * * /usr/local/bin/node_health_check.sh
* * * * * sleep 10 && /usr/local/bin/node_health_check.sh
* * * * * sleep 20 && /usr/local/bin/node_health_check.sh
* * * * * sleep 30 && /usr/local/bin/node_health_check.sh
* * * * * sleep 40 && /usr/local/bin/node_health_check.sh
* * * * * sleep 50 && /usr/local/bin/node_health_check.sh
```