Statement of Work (SOW)

Project Title:

Houdiny AI - AI Powered Lead Outreach Assistant

Project Overview:

This project aims to develop and deploy the Houdiny AI (Outreach Assistant), an AI-powered solution to automate and personalize lead engagement. The system will generate tailored emails and LinkedIn messages, analyze lead data, and automate follow-ups, leveraging AWS Generative AI services. The solution will make use of Amazon Bedrock for AI model capabilities, AWS Lambda for backend processing, Amazon RDS for data management, and AWS Batch for handling heavy computational tasks.

Scope of Work:

Phase 1: Requirements Gathering & Design

- Conduct stakeholder interviews to define core features and capabilities.
- Determine key data sources for lead information and messaging content.
- Finalize AI model requirements for message personalization and lead analysis.
- Test different models available in Amazon Bedrock, including Claude, Mistral, and Llama, to select the most suitable model for lead outreach.
- Design the overall AWS architecture, incorporating Lambda functions, API Gateway, EventBridge, and AWS Batch for computational task management.

Phase 2: Development & Integration

- Implement Amazon Bedrock (Claude-3.5-Haiku) as the chosen AI model after testing Claude and Mistral for generating contextually relevant messages based on lead data.
- Integrate Amazon Lex for conversational AI (if applicable).
- Develop the API Gateway for frontend-backend communication.
- Implement AWS Lambda functions to process lead data, generate messages, and automate workflows.
- Utilize AWS Batch to handle large-scale computational tasks, such as processing large datasets and generating bulk outreach messages efficiently.
- Configure Amazon RDS for structured lead data storage and task tracking.

- Test and select the most accurate prompts based on testing results, ensuring that the system generates high-quality, relevant outreach messages.

Phase 3: Testing & Optimization

- Perform functional testing, including validation of message generation and lead analysis.
- Conduct security and performance testing to ensure system integrity and scalability.
- Optimize AI models for message generation and lead engagement accuracy.
- Conduct User Acceptance Testing (UAT) to confirm that the system meets all business requirements.

Phase 4: Deployment & Maintenance

- Deploy the solution to the AWS production environment.
- Set up continuous monitoring using Amazon CloudWatch to track system performance.
- Provide ongoing system maintenance, updates, and support based on feedback and performance analysis.

Deliverables:

- Fully functional AI-powered lead outreach assistant.
- Integrated backend system for data processing, message generation, and follow-ups.
- Scalable and secure AWS-hosted solution.
- Documentation and training materials for users and administrators.
- Real-time analytics and reporting dashboard for lead performance monitoring.

Project Plan & Sprint Plan

Project Plan Overview:

Phase	**Tasks**	**Timelin e**
Requirements Gathering	Identify features, finalize AI model selection and AWS architecture	Week 1-2

Development & Integration	Implement AI model, integrate backend, configure services	Week 3-6
Testing & Optimization	Functional testing, AI optimization, UAT	Week 7-8
Deployment & Maintenance	Production deployment, ongoing support and updates	Week 9+

Sprint Plan (Agile Framework):

Sprint	Tasks	Timeline
Sprint 1 (Weeks 1-2)	Requirement analysis, finalize AI model and architecture	Week 1-2
Sprint 2 (Weeks 3-4)	Implement **Amazon Bedrock** AI responses, different models, integrate backend, configure APIs	Week 3-4
Sprint 3 (Weeks 5-6)	Implement lead data processing, bulk messaging, and storage	Week 5-6
Sprint 4 (Weeks 7-8)	UAT testing, security testing, and optimization	Week 7-8

Timelines:

Milestone	Estimated Completion
Requirement Finalization	Week 2

Prototype Development	Week 4
Initial Testing	Week 6
Full System Testing	Week 8
Production Deployment	Ongoing
Post-Launch Support	Scheduled

Assessments:

Business Objectives:

- Automate lead outreach through AI-driven personalized messages.
- Increase lead engagement with timely and relevant communication.
- Optimize the outreach process, improving efficiency and scalability.

Technical Feasibility:

- **Amazon Bedrock** for scalable generative AI capabilities (Claude-3.5-Haiku model).
- **AWS Lambda** for serverless backend functions.
- **Amazon RDS** for reliable data storage and management.
- **Amazon S3** for secure data storage and integration.
- **AWS Batch** for efficiently managing large-scale computations and bulk processing tasks.

Risk Assessment & Mitigation:

Risk	Impact	Mitigation Strategy

AI Inaccuracy	High	Regular tuning and feedback loops to optimize AI models
Scalability Issues	Medium	Use **AWS Auto Scaling**, **EventBridge**, and **AWS Batch** for dynamic resource scaling
Data Privacy Concerns	High	Implement encryption and comply with AWS security best practices

Performance Metrics:

- **Message Generation Accuracy**: Aim for 90% correct responses.
- **Lead Engagement Rate**: Increase engagement by 25% compared to manual methods.
- **Operational Efficiency**: Reduce time spent per lead outreach by 80%.
- **Customer Support Cost Reduction**: Target a 50% reduction in manual follow-up costs.