

# Transforming deployment using GitHub actions





# ABOUT US :

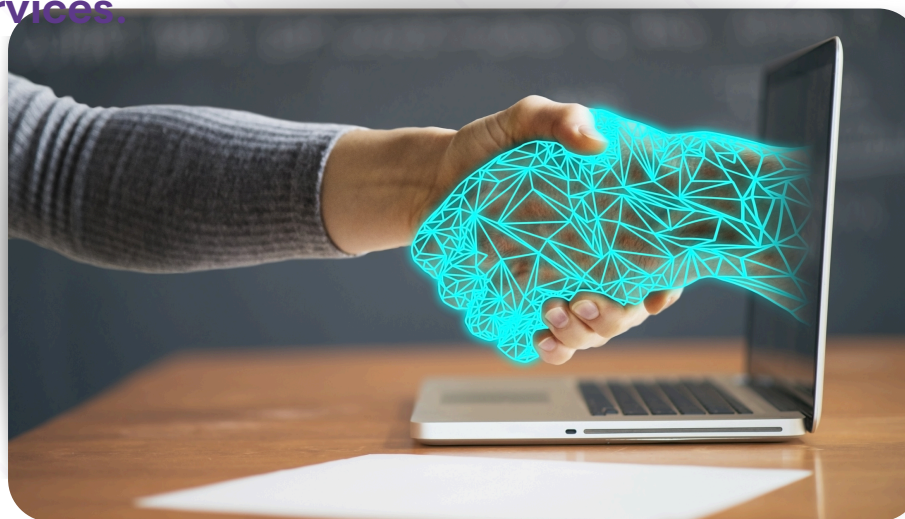
ThoughtSol Infotech is a leading IT system Integrator and cloud services provider company on a mission to enable businesses to grow through Digital Transformation. We help them to leverage the power of IT for a 360° impact on their business operations via our solutions and expertise that spans across Cloud Services, Cybersecurity Services, Data Center Solutions, Digital Solutions and NextGen Services.

YEARS IN BUSINESS **10+**

**100+** CERTIFIED RESOURCES

NUMBER OF CLIENTS **402+**

HAPPY EMPLOYEES = HAPPY CUSTOMERS



We are certified with Excellence in **Quality Management, Service Management, Information Service Management, Environmental Management** and **Business Continuity Management** .

We are at CMMI LEVEL 3



## INDUSTRY:

Healthcare  
Diagnostics

# ABOUT THE CLIENT :

Pathkind is a leading player in the healthcare diagnostics industry, known for delivering accurate and timely diagnostic solutions. As a technology-forward organization, Pathkind sought to streamline its software deployment processes to meet its rapidly growing operational needs.





# BUSINESS CHALLENGES:

- Pathkind's existing deployment process was manual and time-intensive, resulting in:
- Delays in rolling out new features and updates.
- Higher potential for errors during deployments.
- Limited scalability to meet the demands of their expanding operations.
- Inefficiencies in maintaining uniformity across environments.





# SOLUTIONS OFFERED



1. To address these challenges, we implemented the following solutions:
2. GitHub Actions for CI/CD Pipelines:
3. Developed GitHub workflows to automate the entire CI/CD lifecycle.
4. Integrated testing, building, and deploying steps directly within the repository.
5. Azure Container Registry (ACR) for Image Management:
6. Configured workflows to push Docker images to Azure Container Registry after successful builds.
7. Ensured secure and efficient storage of container images.
8. Container Apps for Deployment:
9. Automated the deployment process to Azure Container Apps using GitHub Actions.
10. Enabled continuous delivery with minimal manual intervention.

# TECHNOLOGIES USED

- Technologies Used:
- GitHub Actions
- Azure Container Registry (ACR)
- Azure Container Apps
- Docker
- Azure DevOps







# IMPLEMENTATION PROCESS

- **Requirement Analysis:**
- Conducted a detailed assessment of Pathkind's existing workflows and deployment needs.
- **Workflow Design:**
- Designed GitHub workflows to include triggers for code pushes, pull requests, and merges.
- Defined steps for linting, testing, building, and pushing Docker images to ACR.
- **ACR Integration:**
- Configured GitHub Secrets for secure credentials to interact with Azure services.
- Integrated image tagging to enable version control.
- **Automated Deployment:**
- Implemented GitHub Actions to deploy images from ACR to Azure Container Apps.
- Configured health checks and monitoring to ensure smooth rollouts.
- **Testing and Validation:**
- Performed rigorous testing of workflows in staging environments.
- Fine-tuned workflows based on feedback and real-time performance.

# BUSINESS IMPACTS

- The implementation of GitHub Actions and Azure services provided Pathkind with:
- **Faster Deployment Cycles:**
- **Reduced deployment time by over 60%.**
- **Improved Reliability:**
- **Achieved consistent and error-free deployments across environments.**
- **Enhanced Scalability:**
- **Allowed Pathkind to scale their deployment infrastructure effortlessly to meet growing demands.**
- **Cost Efficiency:**
- **Minimized manual intervention, leading to significant operational cost savings.**
- **Seamless Monitoring:**
- **Enabled real-time tracking of deployments with built-in health checks and logs.**



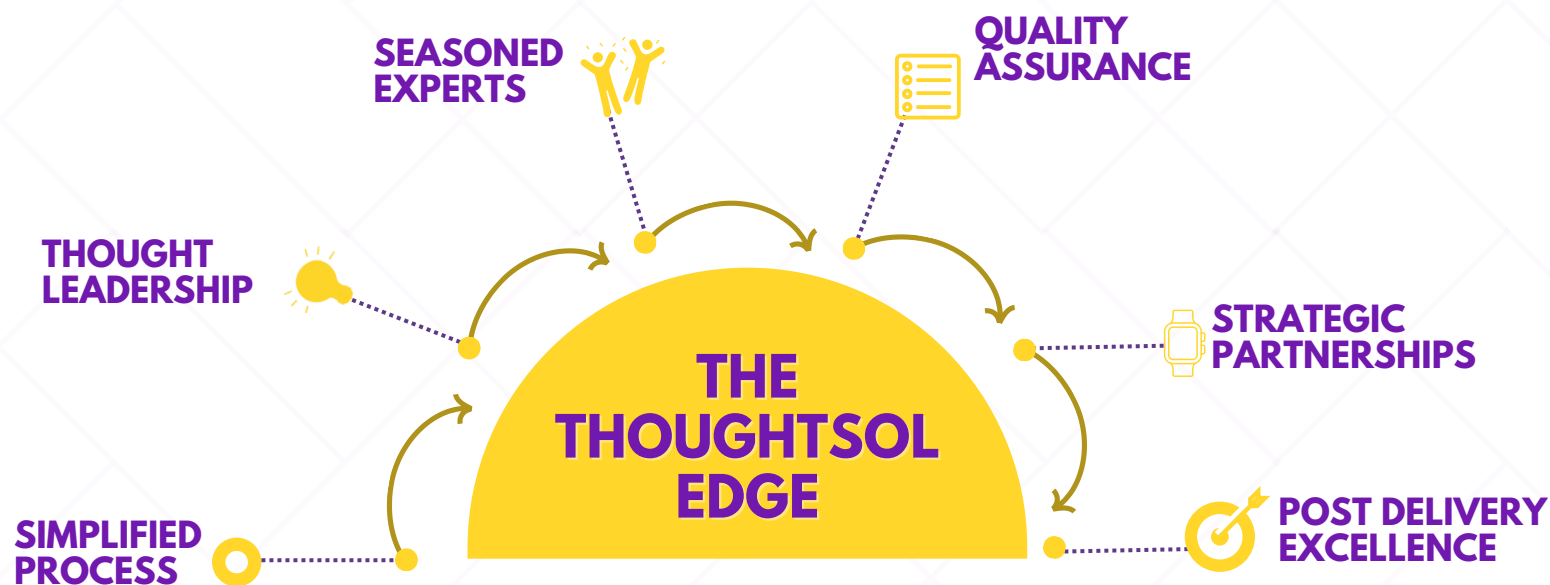




## CONCLUSION :

By leveraging GitHub Actions, Azure Container Registry, and Azure Container Apps, Pathkind transformed its software delivery process. The automated CI/CD pipelines not only accelerated deployments but also empowered the Pathkind team to focus on innovation and deliver enhanced diagnostic solutions to their customers. This collaboration underscores our commitment to enabling businesses with cutting-edge technology solutions.

# THE THOUGHTSOL EDGE:



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We believe in the happiness of all our stakeholders and keep our **customers at the centre of everything** we do.