

```

1  using Corp.Services.Contracts;
2  using Corp.Services.DataContracts;
3  using Grpc.Net.Client;
4  using Microsoft.AspNetCore.SignalR;
5  using Microsoft.Extensions.Hosting;
6  using Microsoft.Extensions.Logging;
7  using ProtoBuf.Grpc.Client;
8  using System;
9  using System.Threading;
10 using System.Threading.Tasks;
11 using static Corp.Resources.Infrastructure.Endpoints.Services;
12
13 namespace Corp.Services.SignalRHub
14 {
15     public class Worker: BackgroundService
16     {
17         private readonly ILogger<Worker> logger;
18         private readonly IHubContext<FloodingAlerterHub, IFloodingAlerter> floodingAlerterHub;
19
20         public Worker(ILogger<Worker> logger, IHubContext<FloodingAlerterHub, IFloodingAlerter>
21             floodingAlerterHub)
22         {
23             this.logger = logger;
24             this.floodingAlerterHub = floodingAlerterHub;
25         }
26
27         protected override async Task ExecuteAsync(CancellationToken stoppingToken)
28         {
29             while(!stoppingToken.IsCancellationRequested)
30             {
31                 logger.LogInformation("Worker starting flooding alert workflow at {Time}",
32                     DateTime.Now);
33
34                 FloodingAlertWorkflowResponse workflowResult = await GetFloodingAlertData();
35                 string alert = ConstructAlertMessage(workflowResult);
36                 await floodingAlerterHub.Clients.All.ShowLatestAlert(alert);
37                 await Task.Delay(15000); // 15 sec
38             }
39
40             private async Task<FloodingAlertWorkflowResponse> GetFloodingAlertData()
41             {
42                 string localhostAddress = $"http://localhost:{FloodingAlerterWorkflowPort}";
43                 GrpcChannel channel = GrpcChannel.ForAddress(localhostAddress);
44                 GrpcClientFactory.AllowUnencryptedHttp2 = true;
45                 FloodingAlertWorkflowResponse response;
46                 using(channel)
47                 {
48                     IFloodingAlertWorkflowService service =
49                         channel.CreateGrpcService<IFloodingAlertWorkflowService>();
50                     response = await service.StartWorkflow();
51                 }
52                 return response;
53             }
54
55             private string ConstructAlertMessage(FloodingAlertWorkflowResponse r)
56             {
57                 return $"Vandstanden er {r.WaterLevel} cm og vinden er {r.WindSpeed} m/s.";
58             }
59         }
60     }

```