Backend proxy 서버 구현

(nodejs + ncloud server)

주제

ASMR 소리 Play 개발

II. Backend proxy 서버 셋팅 (CentOS 7.3 기반)

- 아래 순서를 따라 환경을 셋팅해 주세요.
 - ① 터미널을 이용해 Backend proxy 서버 접속
 - ② Workspace 폴더 이동 → cd workspace
 - ③ 샘플 소스 다운로드 (asmr 소리)→ git clone https://github.com/SeyoungKwon1986/nugu-play-audioplayer-sample-source.git
 - ④ 샘플 소스 폴더 이동 → cd nugu-play-audioplayer-sample-source
 - ⑤ Npm 설치 → npm install
 - ⑥ 웹서버 실행 → node app.js → 서버 구동 확인 (Server is running on 4000 port 출력 확인)

II. Backend proxy 서버 셋팅 (CentOS 7.3 기반)

```
root@nuguplay:~/nugu-play-audioplayer-sample-source
[root@nuguplay nugu-play-audioplayer-sample-source]# vi config.js
[root@nuguplay nugu-play-audioplayer-sample-source]# cd ..
[root@nuguplay ~]# 11
total 8
drwxr-xr-x 3 root root 49 Jun 3 17:32 express-oauth-server
drwxr-xr-x 6 root root 4096 Jul 22 17:39 nugu-play-audioplayer-sample-source
drwxr-xr-x 6 root root 4096 May 15 18:02 nugu-play-sample-source
drwxr-xr-x 3 root root 49 Jun 3 17:27 oauth2-server
drwxr-xr-x 3 root root 19 Feb 19 13:46 workspaces
[root@nuguplay ~]# cd nugu-play-audioplayer-sample-source/
[root@nuguplay nugu-play-audioplayer-sample-source]# 11
total 44
-rw-r--r 1 root root 631 Mar 26 15:24 app.js
-rw-r--r- 1 root root 150 Jul 22 17:38 config.js
-rw-r--r-- 1 root root 11355 Mar 26 15:24 LICENSE
drwxr-xr-x 57 root root 4096 Mar 26 16:25 node modules
drwxr-xr-x 2 root root 21 Mar 26 15:24 nugu
-rw-r--r- 1 root root 391 Mar 26 15:24 package.json
-rw-r--r- 1 root root 15747 Mar 26 16:25 package-lock.json
-rw-r--r-- 1 root root 0 Mar 26 15:24 README.md
drwxr-xr-x 2 root root 21 Mar 26 15:24 routes
[root@nuguplay_nugu-play-audioplayer-sample-source]# node app.js
Server is running on 4000 port
```

II. 샘플 코드 app.js - express를 통한 app 생성

```
const express = require('express');
   const cookieParser = require('cookie-parser');
   const bodyParser = require('body-parser');
   const morgan = require('morgan');
   const {SERVER PORT} = require('./config.js');
   const routes = require('./routes');
  const app = express();
  app.use(bodyParser.json())
   app.use(morgan('common'));
   app.use((err, req, res, next) => next());
   app.use('/', routes);
app.use((req, res, next) => {
     const err = new Error('Not Found');
     err.status = 404;
     next(err);
   });
   app.listen(SERVER PORT, () => {
     console.log(`Server is running on ${SERVER PORT} port`);
```

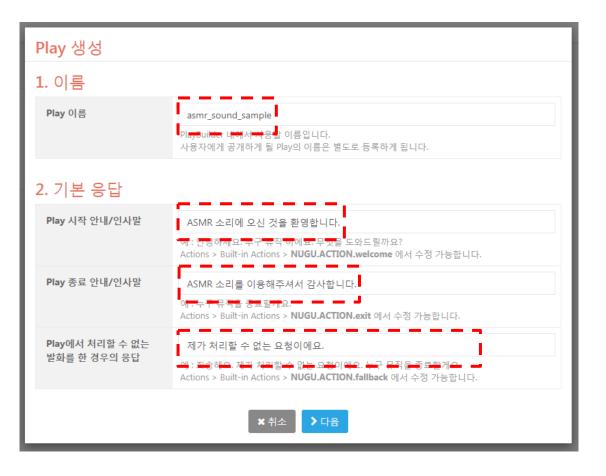
II. 샘플 코드 nugu/index.js – nuguReq 함수 정의

```
82
    const nuguReq = function (httpReq, httpRes, next) {
      npkResponse = new NPKResponse()
83
84
      npkRequest = new NPKRequest(httpReq)
      npkRequest.do(npkResponse)
85
      console.log(`NPKResponse: ${JSON.stringify(npkResponse)}`)
      return httpRes.send(npkResponse)
87
88
    };
    module.exports = nuguReq;
```

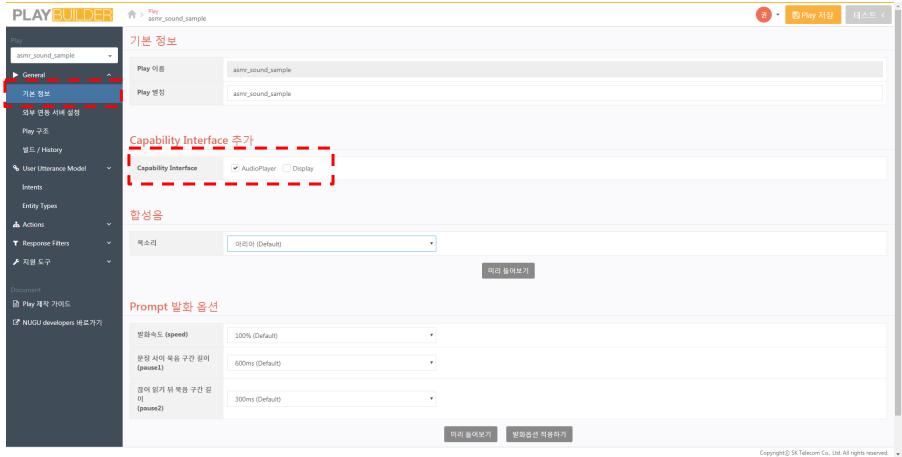
II. ASMR 소리 Play 스펙

- 실습용 Backend proxy 정보
 - Web URL : http://[nodejs 실행 서버의 IP]:4000/nugu
 - 처리 가능 Action 및 Backend parameter 항목
 - 예상 발화: 파도소리 들려줘 / 카페소리 재생 / 빗소리 틀어줘
 - Action : SoundPlayAction
 - Utterance parameters
 - sound_type (Type : SOUND_TYPE)
 - Response 유형: Prompt + Directive
 - Prompt Output : {{sound_type}}를 재생하겠습니다.
 - Directive : AudioPlayer.Play
 - Action : SoundPauseAction
 - Response 유형 : Directive
 - Directive : AudioPlayer.Pause

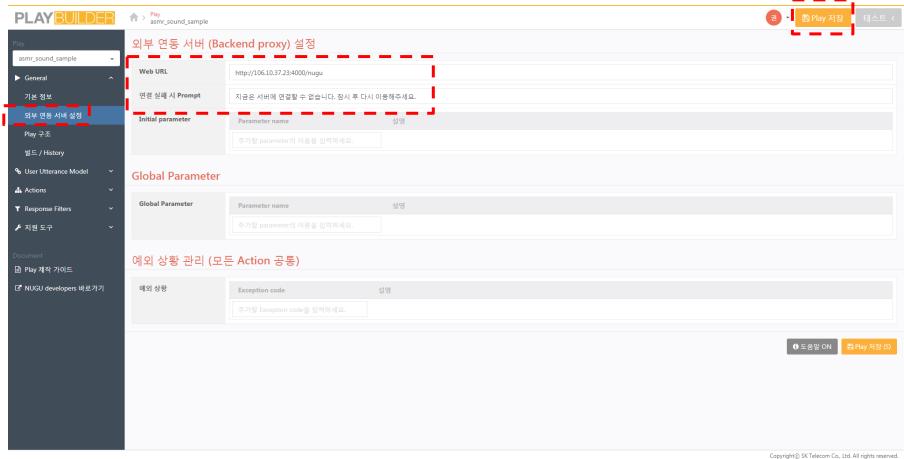
II. Play Builder – Play 생성



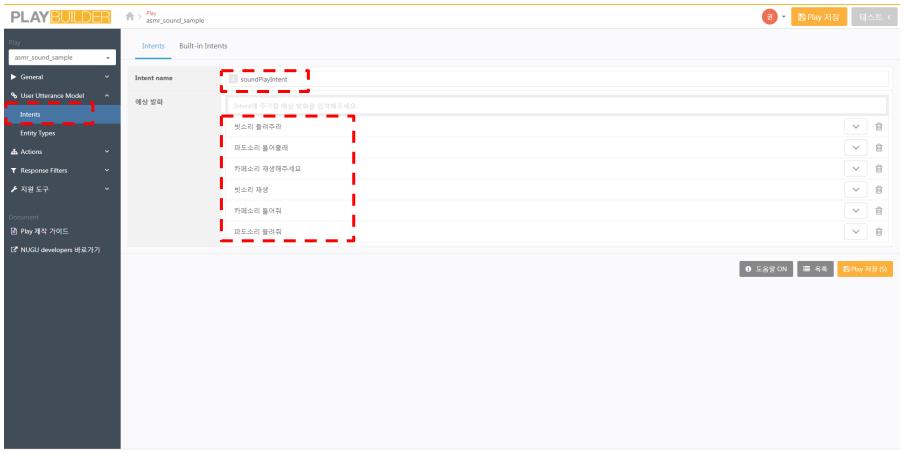
II. Play Builder – 기본 정보

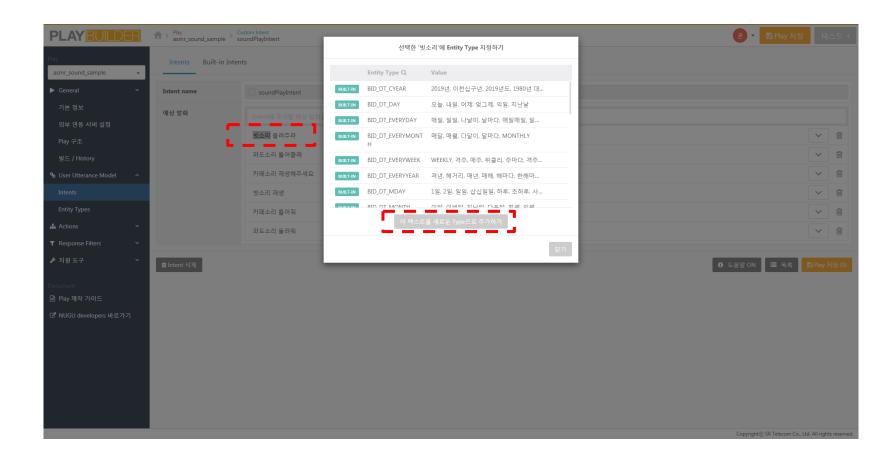


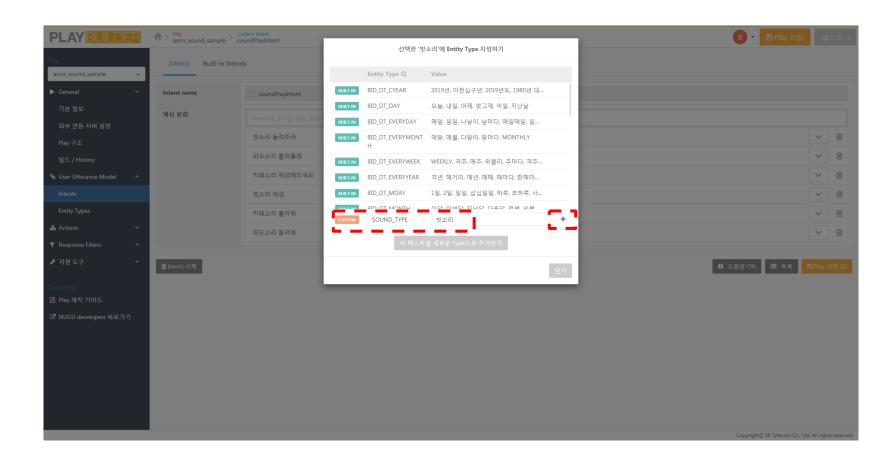
II. Play Builder - 외부 연동 서버 설정

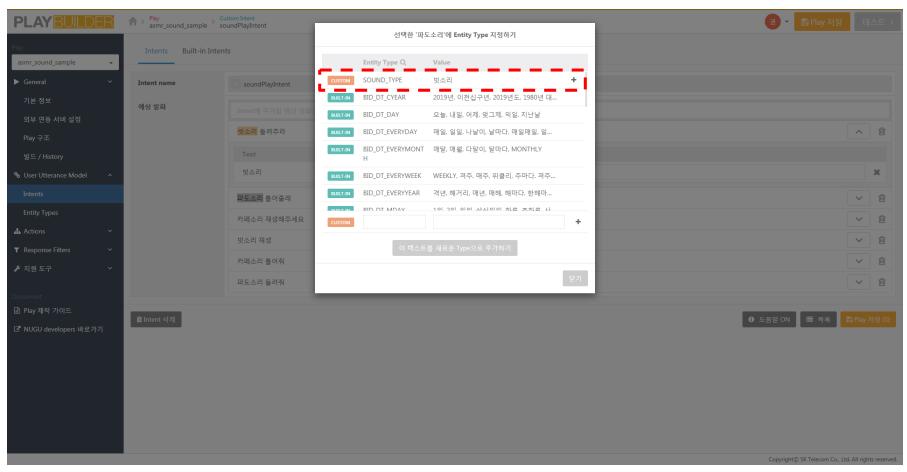


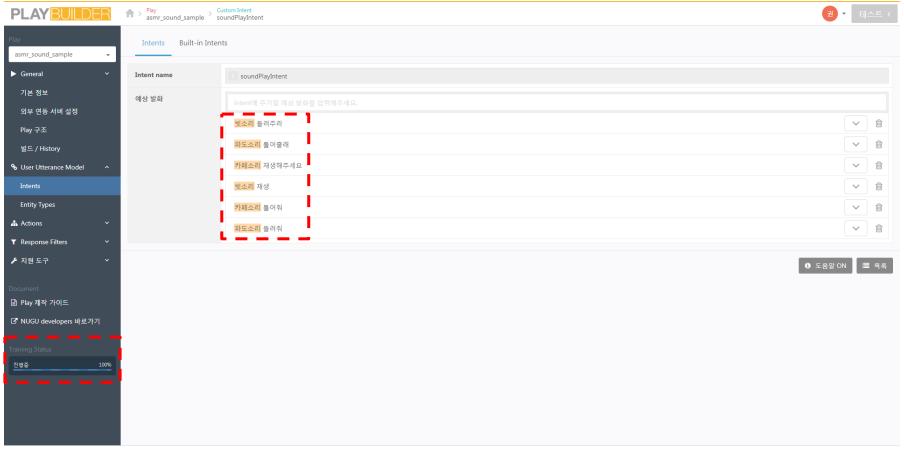
II. Play Builder – User Utterance Model ▶ Intent 및 예상 발화 입력

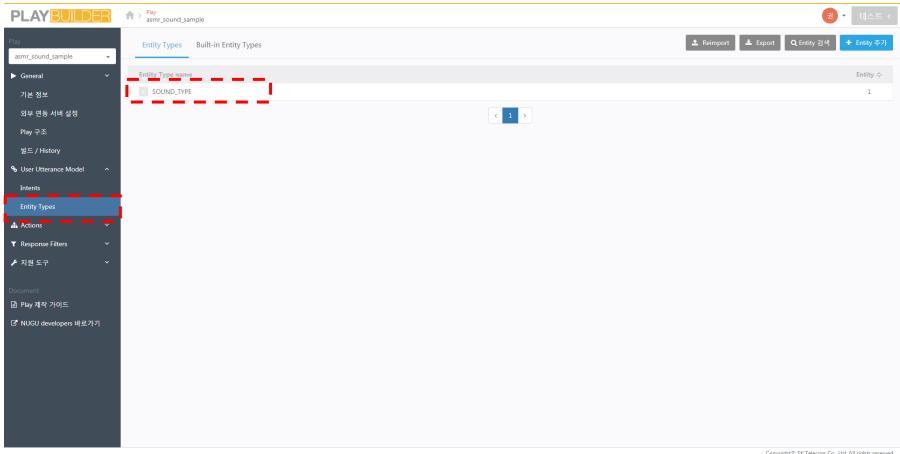


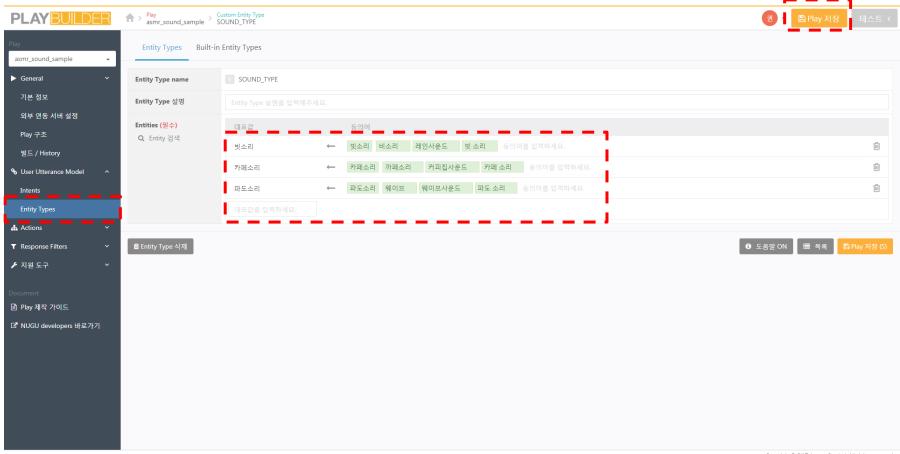




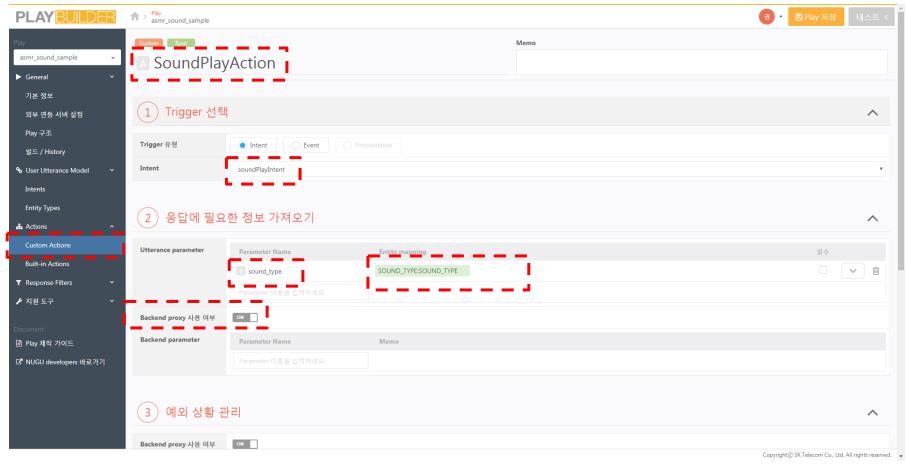








II. Play Builder - Custom Action ▶ SoundPlayAction 정의



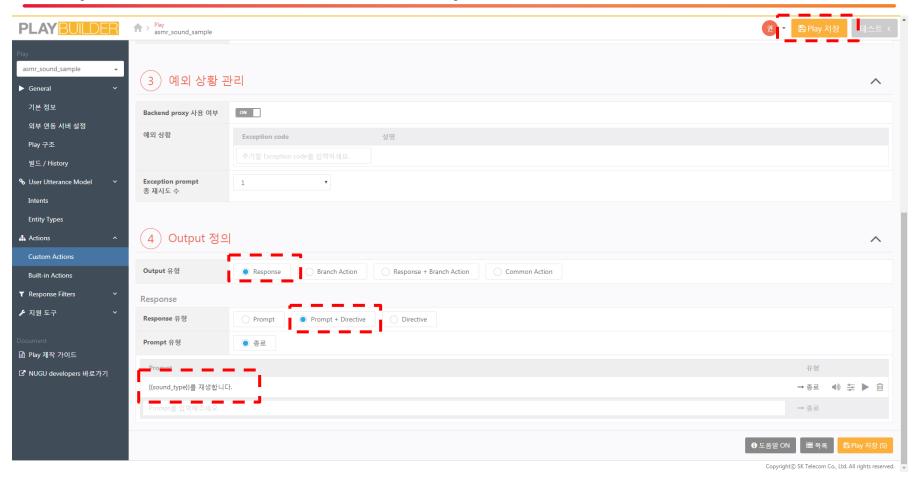
```
class NPKRequest {
  constructor (httpReq) {
    this.context = httpReq.body.context
    this.action = httpReq.body.action
    console.log(`NPKRequest: ${JSON.stringify(this.context)}, ${JSON.stringify(this.action)}`)
}

do(npkResponse) {
    this.actionRequest(npkResponse)
}
```

II. 샘플 코드 nugu/index.js – actionRequest 함수 정의

```
console.log('actionRequest')
const parameters = this.action.parameters
case 'SoundPlayAction':
  const soundTypeSlot = parameters.sound type
    soundFileName = 'wave sound.mp3'
    soundFileName = 'cafe sound.mp3'
  npkResponse.addDirective(audioPlayerDirective(soundFileName))
case 'SoundPauseAction':
  npkResponse.addDirective(pauseDirective)
```

II. Play Builder – Custom Action ▶ SoundPlayAction 정의



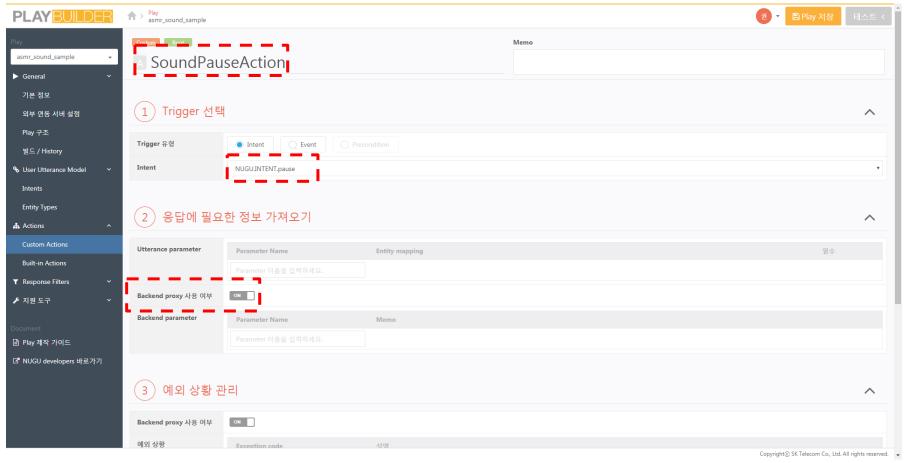
II. 샘플 코드 nugu/index.js – Directive 클래스 및 audioPlayerDirective 함수 정의

```
class Directive {
function audioPlayerDirective(soundFileName) {
  return new Directive({
    type: 'AudioPlayer.Play',
        url: `${DOMAIN}/` + soundFileName,
  return new Directive({
    type: 'AudioPlayer.Pause',
```

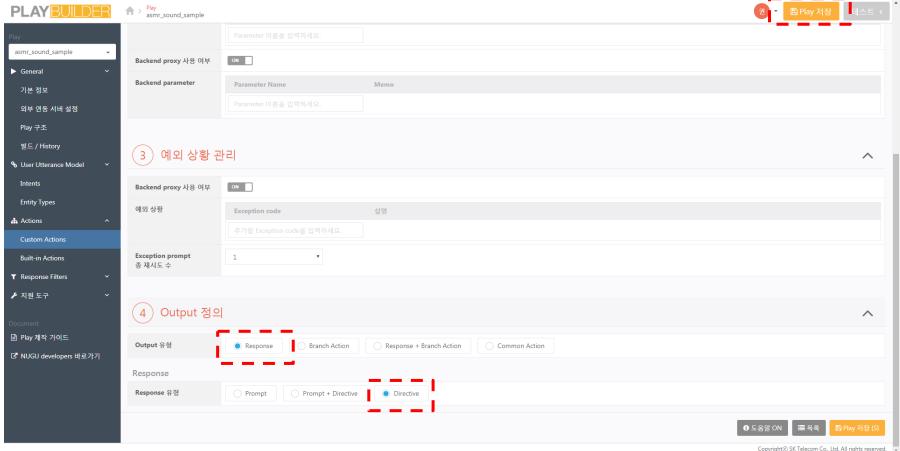
II. 샘플 코드 nugu/index.js – NPKResponse 클래스 정의

```
class NPKResponse {
 constructor () {
   console.log('NPKResponse constructor')
   this.version = '2.0'
   this.output = {}
   this.directives = []
 addDirective(directive) {
   this.directives.push(directive)
```

II. Play Builder – Custom Action ▶ SoundPauseAction 정의



II. Play Builder – Custom Action ▶ SoundPauseAction 정의



II. 샘플 코드 nugu/index.js – actionRequest 함수 정의

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```

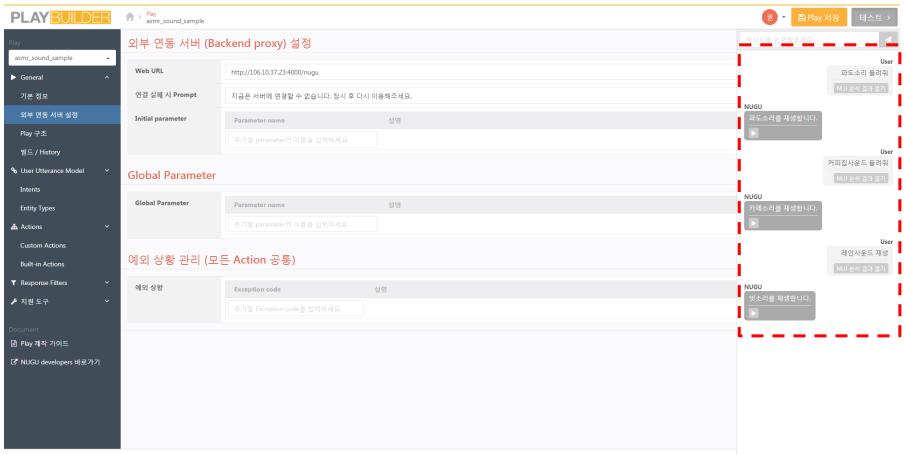
II. 샘플 코드 nugu/index.js – pauseDirective 함수 정의

```
class Directive {
function audioPlayerDirective(soundFileName) {
 return new Directive({
   type: 'AudioPlayer.Play',
       url: `${DOMAIN}/` + soundFileName,
 return new Directive({
   type: 'AudioPlayer.Pause',
```

II. 샘플 코드 nugu/index.js – NPKResponse 클래스 정의

```
class NPKResponse {
 constructor () {
   console.log('NPKResponse constructor')
   this.version = '2.0'
   this.output = {}
   this.directives = []
 addDirective(directive) {
   this.directives.push(directive)
```

II. Play Builder - 테스트



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