x = sequenceXLength;
y = sequenceYLength;

readFromGlobal(back, x, y);
unpackCurrentElement(back, C_up, C_left, B_up, B_left);
prevDirection = DIAGONAL;

while(C_up || C_left || B_up || B_left)
{
    //determining direction
    if( (prevDirection == UP) && (C_up == true) )
        direction = UP;
    else if( (prevDirection == LEFT) && (C_left == true) )
        direction = LEFT;
    else if ( (B_up == true) && (B_left == false) )
        direction = UP;
    else if ( (B_up == false) && (B_left == true) )
        direction = LEFT;
    else //diagonal move
        direction = DIAGONAL;

    //perfroming the move
    if (direction == LEFT)
    {
        alignmentElementX = readFromTexture(sequenceX, x);
        alignmentElementY = '-';
        x--;
    }
    else if (direction == UP)
    {
        alignmentElementX = '-';
        alignmentElementY = readFromTexture(sequenceY, y);
        y--;
    }
    else //diagonal move
    {
        alignmentElementX = readFromTexture(sequenceX, x);
        alignmentElementY = readFromTexture(sequenceY, y);
        x--; y--;
    }

    readFromGlobalIfNeeded(back, x, y);
    unpackCurrentElement(back, C_up, C_left, B_up, B_left);
    prevDirection = direction;
}

append(alignmentX, alignmentElementX);
append(alignmentY, alignmentElementY);